

THE LOGGER'S BARK

a magazine

Radio Club of Tacoma

"Con" Nagy WA7E
in his Hamshack in the sky

In this issue:

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www.W7DK.org

Radio Club of Tacoma
1249 South Washington Street
Tacoma, WA 98405
253-759-2040

W7DK

Open House every Saturday
10:00 AM to 2:00 PM
Last Saturday every month is
Swapmeet Day

Radio Club of Tacoma

Founded 1916

W7DK 2024 OFFICERS AND COMMITTEE LEADERS

EXECUTIVE COMMITTEE:

President: Mike Mikuchonis W7XTZ
Vice President: Adam Barbera W2NCC
Secretary: Gary McAdams WG7X
Treasurer: Steve Dightman AF7YD

BOARD OF DIRECTORS:

Board: Mike Drorbaugh W7MKE
Board: Paul Matney W7PFU
Board: Doug Schafer AB7DG
Board: Red Cranefield WB7EC
Board: Phil Pia K7PIA

KEY COMMITTEE CHAIRPERSONS:

Membership: George K7GRS/Mike W7XH
Salmon Run: George K7GRS/Mike W7XH
Infotech/IT: Randy WB4SPB
HF Operations: Phil K7PIA
Facilities: Adam W2NCC
Property Mgmt. Red WB7EC
Museum: Dan KD7SV
Planning: Manny AD7MA
POTA: BJ WA7WJR
General Meeting: Dave W7UUU
Bark layout & Editor: Dave W7UUU
Assistant/Copy Editor: Anne N7ANN

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**But don't stop there! Each issue is
50 or more pages of fun and cool
stuff to explore! Scroll on!**



HAVE A SUBMISSION FOR OUR NEXT ISSUE?

loggersbark@gmail.com

PRESIDENT'S CORNER

Monthly ruminations from our President

Mike Mikuchonis
W7XTZ

MY BRAIN WAS SEARCHING for a topic to chat about, when I thought of something we've all heard, "Ham radio? Do they still do that?". I read an article on Xfinity the other day that caught my eye and I ripped a small section of the authors offering: "Two years ago, in my home state of Kentucky, we had a devastating tornado that traveled nearly 200 miles, leveled towns, killed scores of people, and left widespread devastation. When emergency responders started hitting the scene, they heard amateur (ham) radio operators systematically offering reports, relaying desperately needed information, and, in general, offering massive amounts of communication assistance."

What he was talking about fits in with what do we do when it "hits the fan". No landline telephone, no cell phone, no internet! Amateur radio operators or hams, as we are nicknamed, can pass messages and traffic when the alternative would be runners, smoke signals, semaphore or carrier pigeons!

But, that's not all we as hams do. We can chat and communicate with other ops via voice, CW, and the many old and new digital modes that are in use today. While some may think we are wasting time (and money) "playing radio" we are in fact building our skills and improving our equipment & antennas so

that if the Big One hits (think [Cascadia Rising](#)) we can assist by passing emergency messages as well as welfare or "I am safe" messages.

Two of the fun things we can do, while improving our skills, is radio contesting, or working DXpeditions where you try to contact that distant station on a

rock or island in the middle of the ocean. Of course you're competing with a few hundred other stations around the world hoping that your signal reaches that rare DX station during a lull in the cacophony trying to make contact.

Hidden transmitter or "bunny hunts" are another fun thing we can do to gain skill as a radio operator. Have your friend hide the transmitter for you to find using radio direction finding methods.

This little chat of mine is not trying to be definitive as to what ham radio is all about. I'm not that smart, LOL! I'm just reminding

those of us who "play radio" some of the reasons why we do it.

Plus, you can tell some of your friends or family why you are in the hobby. Not only showing them what we do but allowing them to actually get on the air might spark an interest like we had so long ago!!

Until we meet again, 73 Gang!

-Mike Mikuchonis, President, W7XTZ



Jim W7OWI at Ft. Nisqually (Pt. Defiance)
Bunny Hunt, Sunday May 21, 2017

FROM THE DESK OF THE VP

Insights from our Vice President

Adam Barbera
W2NCC

ENHANCING AMATEUR RADIO SKILLS with ARRL's Educational Tools

In the world of amateur radio, continuous learning and skill enhancement are key to staying abreast of the latest developments and becoming a more proficient operator. The American Radio Relay League (ARRL) offers an array of educational tools that many operators may not be fully aware of. These resources are designed to improve the knowledge and capabilities of ham radio enthusiasts at all levels.

The ARRL's learning program is a treasure trove of courses, webinars, and resources that cover a broad spectrum of topics pertinent to amateur radio. From operating procedures and technical know-how of radio equipment, to emergency communications and regulatory compliance, the program provides a comprehensive curriculum for operators to delve into the details of ham radio.

One of the standout offerings is the Antenna Modeling course. This specialized training equips participants with software tools for antenna design and analysis, blending theory with practical applications. Learners can optimize antenna performance, troubleshoot issues, and experiment with different configurations, thereby enhancing their technical ability.

Another critical area covered by the ARRL is emergency communications. The Emergency Communications Course delves into protocols, message handling, deployment strategies, and collaboration with agencies. It prepares operators to provide indispensable communication support during crises, a role that amateur radio has historically played.

Interference is a common challenge for radio operators, and the RFI/EMI Mitigation course addresses this head-on. It offers insights into identifying and resolving radio frequency

and electromagnetic interference, teaching about common RFI sources, troubleshooting, and shielding methods. This knowledge is crucial for maintaining clear signals and a seamless amateur radio experience.

Participation in the ARRL learning program isn't just about acquiring new skills; it's also a stepping stone for career advancement within the hobby. Whether it's obtaining new licenses, exploring specialized areas, or taking on leadership roles, the ARRL provides the necessary resources and support for operators to achieve their aspirations.

The courses serve as a foundation for both newcomers and intermediate licensees, enabling them to develop their skills, engage with the community, and partake in the numerous activities that the world of amateur radio has to offer.

The ARRL Learning Center offerings represent just a fraction of what's available to the amateur radio community. The center offers a comprehensive pathway that accommodates the varied interests of individuals, both beginners and experienced to enhance their knowledge of the world of amateur radio.

Engaging with these educational tools can significantly enhance an operator's effectiveness and enjoyment of this dynamic and rewarding hobby.

Read more about it at this link:

<https://learn.arrl.org/learning-paths>

Until next month—Adam Barbera **W2NCC**
Vice President

Photo: © [Jeff Geerling](#) **KF0MYB**

SECRETARY'S REPORT

W7DK Secretary—Gary WG7X



FIELD DAY 2024—Coming soon!

TO QUOTE ARRL:

Field Day is ham radio's open house. Field Day has been an annual event since 1933. ARRL Field Day is the single most popular on-the-air event held annually in the US and Canada. On the fourth weekend of June of each year, thousands of radio amateurs gather with their clubs, groups, or simply with friends to operate from remote locations. Field Day is a picnic, a campout, practice for emergencies, an informal contest and, most of all, FUN!

It is a time where many aspects of Amateur Radio come together to highlight our many roles. While some will treat it as a contest, other groups use the opportunity to practice their emergency response capabilities. It is an excellent opportunity to demonstrate Amateur Radio to the organizations that Amateur Radio might serve in an emergency, as well as the general public. For many clubs, ARRL Field Day is one of the highlights of their annual calendar.

The contest part is simply to contact as many other stations as possible and to learn to operate our radio gear in abnormal situations and less than optimal conditions. UNQUOTE.

The above was quoted / paraphrased from the ARRL to set the background for W7DK's participation in this year's ARRL Field day. We have done it every year in recent history and will continue to do it every year in the foreseeable future.

That said, in some past years it was a *competitive* event, usually setting us: Radio Club of Tacoma W7DK against the Mike & Key club K7LED. They usually beat us, but what the heck, it was all fun.

This year, we are dialing it down a bit and we want to concentrate on the *fun* aspects, which mostly center around *getting folks on the air* on the HF frequencies so that they can experience all that HF offers to us all. This is not pointed at any particular group either. There are *many* hams of *all* license classes who have, for example, never operated any HF operation at all.

Field day gives us all a chance to try things that we've never done before. RCT can and will provide a station with a station leader who will guide you through the experience with no muss, fuss or judgments on anyone's ability.

We have taken folks with little to no experience before, given them a chance to make a contact or two, three, or many more as they wished, and everyone involved had a good time.

Elsewhere in this edition of the Loggers Bark you will find a nice article from field day head honcho Mike Drorbaugh **W7MKE**. In that article, Mike lays out the "where and why stuff", please read his article for details.

Right here, all I want to do is to encourage everyone even remotely interested in field day to come out to the site and give it a try. Who knows? You might even *enjoy* the experience!

73 Gary **WG7X**

Secretary, Radio Club of Tacoma



THIS MONTH WE HAVE SOME MILESTONES!

As some may be aware, starting with the March issue of The Logger's Bark, we have been published on the front page of the biggest ham radio website in the world, QRZ.com. This has been a wonderful situation for both the public exposure of the Radio Club of Tacoma, and for QRZ in that the publications have brought a *lot* of page views to the site which helps QRZ—so quite a symbiotic relationship if ever there was one.

As of this writing, the March issue of The Bark has had over 4200 downloads, while the April edition is at 10,211! That's really amazing. The comments received on QRZ have been overwhelmingly good, and in this month's "Letters to the Editor" section I have published just a handful of them to give you an idea.

But a big mystery still remains: who among the *actual members* of The Radio Club of Tacoma are reading The Bark? To date, I've not received *a single email* from a local member who is not also a contributor. Why is this? Please—shoot me an email and tell me why! Is there some aspect of The Bark that isn't meeting the needs of the locals? Tell me what that is.

I really want to thank our loyal contributors: President Mike [W7XTZ](#), who swore he didn't want to write columns but is now getting me one like clockwork every month! Thanks Mike! And VP Adam, [W2NCC](#), who not only provides the VP column but also his "Adam's Tech Talk" column as well. Great stuff. And of course our intrepid Secretary, past President, and past Bark Editor Gary [WG7X](#) with his detailed minutes & column from

both of our monthly meetings like clockwork every month. Then there's Doug [AB7DG](#) providing EmComm news of the ham world, Dan [KD7SV](#) with his Museum reports every month, BJ [WA7WJR](#) with POTA activities reports, Steve [AF7YD](#) with his Youth in Ham Radio updates, Randy [WB4SPB](#) for various statistical details and a Guest Editorial here and there, and our various "cub reporters" like Rich [KR7W](#), & Bob [K7MXE](#), who regularly contribute little tech tidbits and even full-scale articles. I thank you all! A big part of the vibe of The Logger's Bark is the local content and flair all these great folks provide.

So in closing, thanks to all for these great milestones to come to pass for our club.

73— Dave [W7UUU](#), Editor



HAM RADIO WORLD NEWS

Amateur radio events from around the world



W7UUU

HAMVENTION 2024! May 17-19, 2024

It is getting *really close* to the ShowTime!

[“The ARRL and 2024 Dayton Hamvention](#)

[APP](#) is now up and available. Find the current forums and vendors information and plan your visit. Each year you need to create a login to see the current information. If you used the app prior to this year, be sure to back out to the homepage to pick our current event. Download or update from your favorite APP Store.”

Since this is also the [ARRL National Convention](#), visit the many ARRL forums. Additional ARRL staff will be at the show so stop by and talk to them. The Greene County Fairgrounds and Expo



Center has made improvements to the Flea Market area inside the track. The path asphalt pieces were combed and large pieces removed. A top layer of river gravel was then applied and rolled. Additional rolling will occur prior to our

event. Hopefully, this makes it easier and safer to traverse the Flea Market.

Please join us this year at the flag poles by the dining area on Friday morning at 10am for an opening program. We will be joined with local officials and dignitaries as we open the event.

Please be aware that you may have received an email pretending to be from Hamvention and providing attendee lists. This email is NOT from Hamvention and if you look closely at the content it says “Hamletian.” They try this scam each year.

Hamvention does not provide nor sell attendee lists. We value our vendors and attendees and will never release this information.

If you received this email from them, simply delete it and do not respond to them.

On behalf of all our many volunteers, the Dayton Amateur Radio Association Board of Directors and my Assistant General Chair, Brian Markland, N8UDQ, thank you for being part of Hamvention history.

Jim Storms, **AB8YK** Hamvention General Chair 2024

Heard some ham radio WORLD news? Send it in!

HAM RADIO WORLD NEWS

Amateur radio events from around the world



W7UUU

2024 AMSAT/TAPR BANQUET at Hamvention to be Held Friday May 17th

The [AMSAT](#) News Service bulletins are a free, weekly news and information service of AMSAT, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on <https://www.amsat.org> publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to: ans-editor@amsat.org

You can sign up for free e-mail delivery of the AMSAT News Service Bulletins via the ANS List; to join this list see: <https://mailman.amsat.org/postorius/lists/ans.amsat.org/>

ANNOUNCEMENT:

2024 AMSAT/TAPR Banquet at Hamvention to be Held Friday May 17th

The 15th annual AMSAT/TAPR Banquet will be held at the Kohler Presidential Banquet Center on Friday, May 17th at 18:30 EDT. This dinner is always a highlight of the TAPR (Tucson Amateur Packet Radio)

and AMSAT (Radio Amateur Satellite Corp.) activities during the Dayton Hamvention. This year's banquet speaker will be Bill Reed, NX5R, AMSAT PACSAT Project Manager, who will highlight the forthcoming PACSAT digital communications payload.

The Kohler Presidential Banquet Center is located at 4548 Presidential Way, Kettering, Ohio – about 20 minutes away from the Greene County Fairgrounds.

Tickets (\$60 each) may be purchased from the AMSAT store. The banquet ticket purchase deadline is Friday, May 10th. Banquet tickets must be purchased in advance and will not be sold at the AMSAT booth. There will be no tickets to pick up at the AMSAT booth. Tickets purchased on-line will be maintained on a list with check-in at the door at the banquet center. Seating is limited to the number of meals reserved with the Kohler caterers based on the number of tickets sold by the deadline.

■ -editor via AMSAT

Heard some ham radio WORLD news? Send it in!

ARRL NEWS & VIEWS

What is the League up to this month?



W1AW

ARRL APPOINTS NEW WWA Section Manager

On April 1, 2024, the ARRL Western Washington Section will have a new Section Manager. I am pleased to introduce to the section's membership, Robert (Bob) M. Purdom, **AD7LJ**. WWA Section manager Jim Pace, **K7CEX** appointed Bob to serve as an Assistant Section Manager on April 15, 2009. The best way to describe him is, he is a ham's ham. Bob is a veteran of the United States Air Force and United States Navy. He is a retired naval officer and telecommunications engineer for the State of Washington, where he did communications planning, worked on LMR mobiles and base stations, as well as Lahar, Earthquake and Tsunami alert/warning systems. Bob has been a ham radio operator for 19 years. He is a life member and very active in the Radio Club of Tacoma and a member of the Capital Peak Repeater Group. Please join me in welcoming Bob, **AD7LJ**, as the new Section Manager for the Western Washington Section.

I will become an Assistant Section Manager and working with Bob in several project areas including membership recruiting, EM-COMM intra/inter section cooperation, working with the section's tribal liaison to develop and implement an EM-COMM support system for our tribal neighbors and other tasks assigned by the section manager. Thank you for your confidence and trust in allowing me to be the WWA SM for the past 11 years. I will continue to be a responsible ARRL leader for the section.

ARRL Western Washington Section

Section Manager: Monte L Simpson, **W7FF**

w7ff@arrl.org



Bob Purdom, **AD7LJ**

MEMBER SPOTLIGHT



Steve Dightman, AF7YD



Steve Dightman, AF7YD, has been a member of the Radio Club of Tacoma since August 8, 1962 as member number 512. He has been heavily involved in club activities for many years, most recently as the club Treasurer beginning in 2016. He's also a two-time winner of the coveted Doc Spike award, in 1979 as well as in 2016, for his many contributions to the club over the years.



THE RCT MAILBAG

THE APRIL LOGGER'S Bark seems to have been a *resounding* success! As of this writing, there have been over 9000 [downloads from QRZ.com](#) and several hundred from the W7DK web server. This is wonderful news!

For this month's Mail Bag, here are some comments left by users on QRZ where the Bark was published on April 1...

"Awesome read, great job. Awesome club as well"

-Karl, **KB8SKK** in Cincinnati

"I found this article from the Logger's Bark Magazine very informative and shared it with my Facebookers. Thanks for your great work" -Günter, **DK5ONV**, Wiesbaden, Germany

"Great looking, professional production, funny, amusing satirical inclusions, wonderful pictures, excellent interviews, informative, not preachy, not political, EmComm appropriate, no pleas to overturn ancient private property rights, just a bunch of fun people enjoying camaraderie and casting ham radio in an extremely positive light. A local club, now with national visibility. More!" -Tom, **N1FM** in Ellijay, Georgia

"Very impressive work and an enjoyable read with something, indeed many things, of interest for every ham. Kudos to you, your staff [!!] and your club"

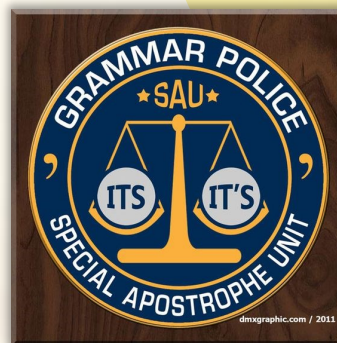
- Ross, **W6RSS** Benicia, CA

We'd love to hear from you!

I even received a request from Elan, **EA5QB** via email: "Hello. How can I get this nice magazine? [via mail as a printed edition]"

Thanks to our loyal contributors for helping to make the Loggers Bark Magazine such a hit. Be sure to spread the word among our actual members though... *I have yet to receive a single email or in-person comment from a club member who is not a contributor.*

-Dave **W7UUU**, editor



MEMBER RECOGNITION

Special Honors for Select Club Members



THE RADIO CLUB OF TACOMA is honored to have not one, but *two* of its members honored by the Pierce County Council. During the week of March 11—17, 2024, Pierce County declared “Volunteer Recognition Week”, and among the several recipients of awards, the two individuals at the very *top* of the roster are active members of the Radio Club of Tacoma: Doug Schafer, **AB7DG**, as Volunteer of the Year, and Ollie Bond **AD7CC** with the Golden Service Award.

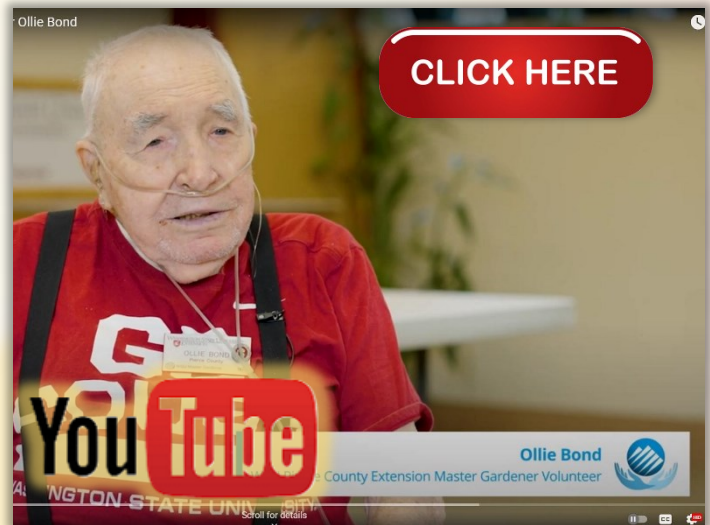
These awards are in fact the *very top* of the county awards, and are a wonderful acknowledgement of the achievements of these two outstanding members of not only the community, but our very club.

Doug for his years of service with ARES and the Pierce County EOC, and Ollie as a volunteer with the WSU Pierce County Extension Master Gardener’s program for almost 50 years (since 1978), earning him the Golden Service Award.

Please—***watch the linked YouTube videos in the next column to see our two esteemed members give you a snapshot of their contributions to our local community.***

My sincere congratulations to you both for your devotion to others, your giving natures and personalities, your gifts of time, and for the achievements you have attained.

See the next page for the official proclamation from Pierce County. ■ *-editor*



OLLIE BOND AD7CC
2024 PIERCE COUNTY COUNCIL
GOLDEN SERVICE AWARD WINNER



DOUG SCHAFER, AB7DG
2024 PIERCE COUNTY COUNCIL
VOLUNTEER OF THE YEAR

MEMBER RECOGNITION

Special Honors for Select Club Members



PIERCE COUNTY WASHINGTON

A Proclamation of the Pierce County Council Proclaiming the Week of March 11 – 17 as "Volunteer Recognition Week" in Pierce County, Washington.

Whereas, the spirit of volunteerism is a cornerstone of our community, embodying the selfless dedication and compassion of individuals who willingly give their time, talents, and energy; and

Whereas, Pierce County volunteers are the heart and soul of our community, contributing to the well-being and vitality of our County in countless ways, including as search and rescue volunteers, tutoring, master gardeners, supporting special events, child advocates, coaches, advisory committee members, and a multitude of other vocations; and

Whereas, this year, the Pierce County Council dedicates the week of March 11-17 as Volunteer Recognition Week to provide an opportunity to express our deepest gratitude for the immeasurable impact that volunteers make every day, fostering a sense of unity, connection, and shared responsibility; and

Whereas, recognizing the efforts of volunteers not only acknowledges their invaluable contributions but also encourages a culture of giving back, fostering a stronger, more compassionate, and interconnected community; and

Whereas, the Annual Pierce County Government Volunteer Recognition Event is scheduled for Saturday, March 16, 2024, to recognize individual and group volunteer contributions to Pierce County government in 2023; and

Whereas, the commitment and generosity of volunteers create a ripple effect, inspiring others to join in the noble pursuit of making a positive difference in the lives of those in need; and

Whereas, it is important for all residents of Pierce County to recognize our responsibilities, and follow the example of these volunteers by giving of ourselves for the betterment of our communities; **Now, Therefore,**

BE IT PROCLAIMED on this 5th day of March 2024 by the Pierce County Council that the week of March 11-17, 2024, is "Volunteer Recognition Week" in Pierce County, Washington, and on behalf of the residents of Pierce County, the Pierce County Council wishes to honor and thank the many dedicated volunteers who give generously of their time, energy, and abilities. The Pierce County Council hereby acknowledges the special efforts and contributions of the following recipients:

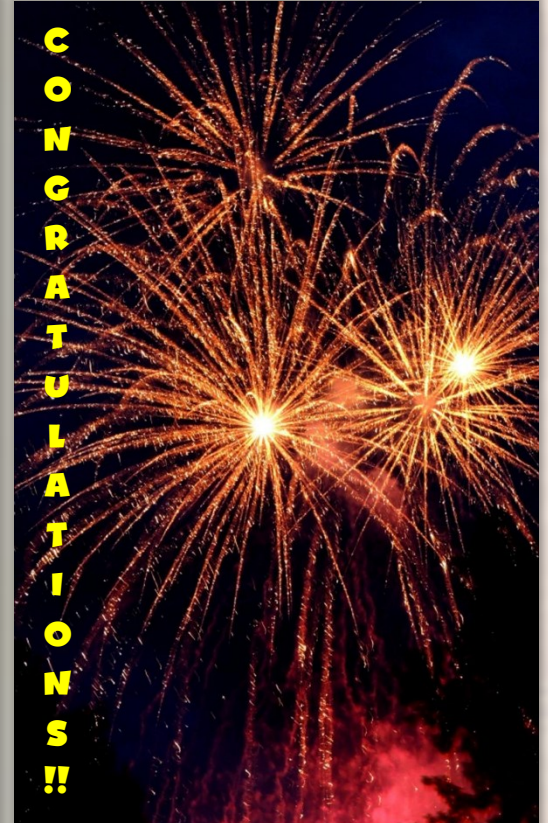
Doug Schafer	Volunteer of the Year	Elizabeth Hayward	Silver Service Award
Oliver Bond	Golden Service Award	Mary Hursh	Silver Service Award
Shirley Carstens	Special Service	Nancy Lawton	Silver Service Award
Jeff Salzer	Special Service	Jill McNally-Martinez	Silver Service Award
Joyce Fraizer	Special Achievement		
Michael Mirra	Special Achievement		
Deborah Bronken	Silver Service Award		
Lois Foess	Silver Service Award		

Group Special Achievement

Larry Dorothy
Stan Nelson
Lorraine Nelson
Mark Yordy

PIERCE COUNTY

Ryan N. I.
Dave Mo
Paul Her
Amy Cr
Marty Ca
Jani Hit
Robyn D



PIERCE COUNTY

In appreciation and recognition of outstanding volunteer efforts and contributions on Pierce County's behalf, congratulations on receiving a

2023 Volunteer of the Year

Emergency Management Emergency Communication (ARES)

Doug Schafer

Pierce County

Bruce Dammeier
Pierce County Executive

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



Stephen **AD7AB** visiting in the kitchen....



His really cool hat waits in the car!



Dana & BJ **WA7WJR** tour the clubhouse and visit the HF room and Library upstairs



Rob **W7VB** "strikes the pose" in the classroom!

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by
Dave **W7UUU**

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



Walt **WA7SDY** hard at it selling off stuff at the March 30th clubhouse sale



Scott **KF7ZFL** gives a "Thumbs Up!" for a great day in the clubhouse!



Paul, **K7OSS** stops by the W7OS Museum to see what's being worked on today



Planning Committee Chairman Manny **AD7MA** discusses HF room plans with the group

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by
Dave **W7UUU**

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



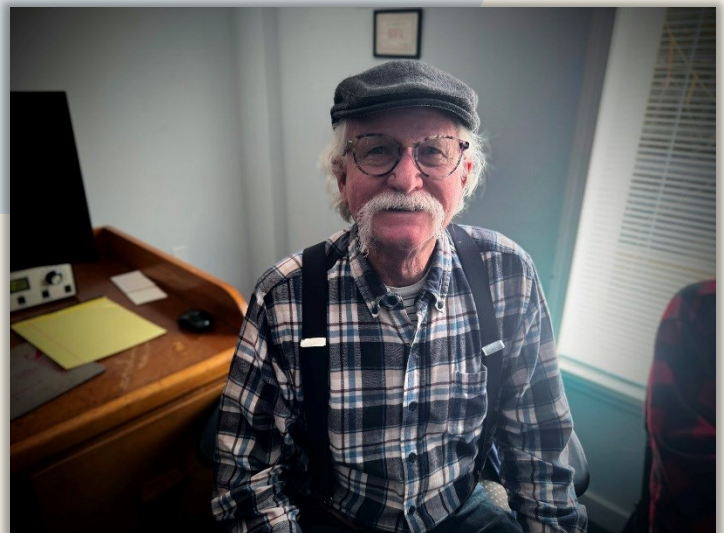
New ARRL Western Washington Section Manager Bob **AD7LI** visits the March 30th clubhouse Swapmeet



Al **N7OMS** visits in the library with Anne **N7ANN**, taking about bird watching—a shared interest!



Manny **AD7MA**, David **AC7KP**, Gary **WG7X** and Phil **K7PIA** discuss HF room plans



Wayne **KD7VWM** stops by the HF room to show members an interesting new generator product (explained elsewhere in this Bark issue)

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by
Dave **W7UUU**

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



Paul **W7PFU** hard at it in the kitchen....



Dishing up fabulous spaghetti for the gang!



Steve **AD7VL** expresses his approval!



As does Ellen **AI7FP**, as John **KA7RMG** waits his turn at Paul's Chuckwagon

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by
Dave **W7UUU**

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



Fresh spaghetti... but it needs something



Ah of course! Fresh buttered garlic bread of course!



*Commander Bob **AD7LI** gets the very first plate off the assembly line!*



*Anne **N7ANN** shares smiles and compliments to the club chef, Paul **W7PFU***

Got pictures from the clubhouse? Send 'em in!

*All photos this page provided by
Dave **W7UUU***

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



The latest FlexRadio addition to the Mighty DK arsenal: The Flex 6400M now in the Lou Room



Bruce WE7P starts working out how the 6400M differs from the other Flex radios at W7DK



Ellen, AI7FP joins Bruce WE7P in adapting to the new addition to the Lou Room station



Got pictures from the clubhouse? Send 'em in!

All photos this page provided by
Dave W7UUU

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



Dave, **N7HT** takes a break from the Tech training class to visit in the clubhouse kitchen



Greg, **KT1A**, talks tech with Mike **W7MKE** in the W7OS Museum station



John, **N7JFM** stops by the clubhouse for a social visit and a donut



Dave **W7UUU** takes a break from picture taking to be the victim himself!

Photo by Anne **N7ANN**

Got pictures from the clubhouse? Send 'em in!

All photos this page provided by
Dave **W7UUU** except as noted

AROUND THE CLUBHOUSE

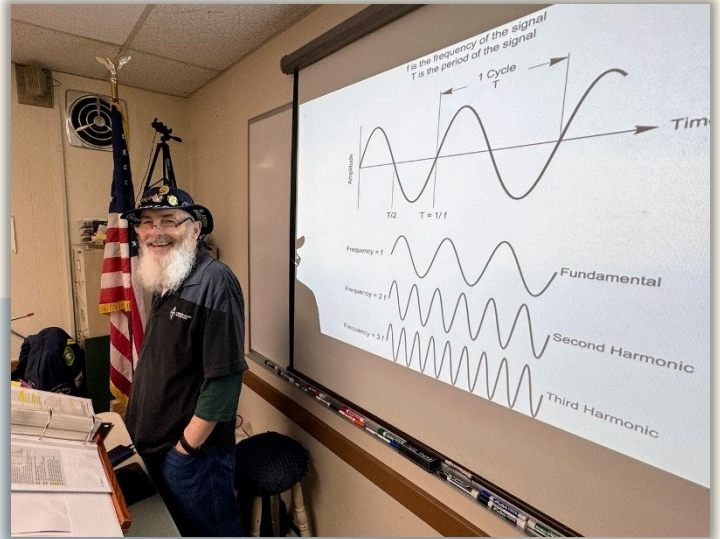
Recent Photo highlights from the Clubhouse



W7DK



Classroom was abuzz with Tech class training on Saturday April 6th



Stephen AD7AB leads the training



Gary WG7X visits with John K17YRC in the HF room on April 6th



David AC7KP and Lloyd AG7CX hanging out in the HF room

Got pictures from the clubhouse? Send 'em in!

*All photos this page provided by
Dave W7UUU*

AROUND THE CLUBHOUSE

Recent Photo highlights from the Clubhouse



W7DK



Becky **KG7FZH** working with the Flex 6600



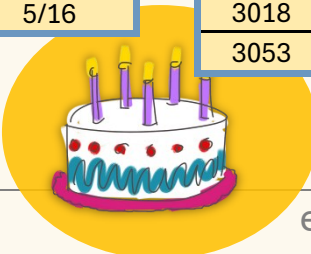
Warren **NG7G** demonstrating is IC-705 setup

2980	James Kinsey	K3YT	5/1
2228	Anna Winter	K7ANA	5/2
2617	David Desertspring	AG7EZ	5/2
3100	Brenda Benzien	KK7PQT	5/2
3081	Kurt Giessel	KK7JGX	5/3
3101	Michael Benzien	KJ6TJD	5/5
2156	Roddney Saucedo	WV7O	5/6
3036	Jim Wolff	AH2CG	5/6
3060	Samuel Rentfro	KI7AAY	5/7
2081	Andrew Evancho	WA7JGO	5/8
2679	Richard Dickson	AF7VU	5/8
2857	Michael Shannon	WA7BDK	5/9
3089	Kurt Bigbee	KK7NKT	5/9
998	Thomas Smith	N7CFI	5/12
2949	James Denneny	K7EG	5/12
2758	Joe Kubistek	KG7ZYB	5/13
692	Nils Olson	N7BCV	5/14
2892	Steven Schenk	K7YEM	5/14
2035	Jay Leatham	KA7JAY	5/16

2603	Mary Timblin	W7MET	5/17
3074	Michael Starks	KK7JVG	5/17
2990	Michael Brugato	KK7BMT	5/18
3001	William Rollison	WA7WJR	5/18
1550	Robin Lee	K7TGU	5/19
3094	Johan Pool	KK7NYV	5/19
623	John Chris Jensen	W7YX	5/20
1071	Mark Matthies	W7MRK	5/24
1352	Kathleen Nace	N0EYK	5/25
2361	Brett Erwin	NU7DX	5/25
2530	Paul Nosal	K7OSS	5/25
3082	Nathaniel Tilley	N7NWT	5/25
512	Steven Dightman	AF7YD	5/26
2803	Brian Miller	K7BDM	5/26
982	Walter Peterson	KA7IOX	5/27
1247	Ronald McCallister	N7FYA	5/28
2677	Whit Worcester	KG7LNZ	5/28
3057	Troy Cleghorn	N7PIE	5/28
3018	Paul Thorpe	KJ7JCB	5/30
3053	John Quinn	N7LJG	5/30

May Birthdays!!

All photos this page by Dave W7UUU



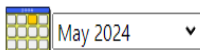
THIS MONTH'S CALENDAR

Always check the W7DK website for latest news



W7DK

Calendar



May 2024

April			May, 2024			June	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
18 April	April	April	1 07:00pm Board meeting	2	3	4 Star ID Ham Fest Richland Ham Fest	
5	6	7	8 07:00pm General meeting ...	9	10	11 Boise, ID Hamfest Stanwood WA	
12	13	14 07:00pm VE License Exam ...	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30	31 SEAPAC Hamfest—Seaside, OR	June	

Did you know?

May got its name for the [Greek goddess Maia](#), the daughter of Atlas and Pleione, of the [seven Pleiades](#). In the Roman calendar, Maia was called [Bona Dea](#) but “in the time of naming things” the Romans went with the name Maia.



Click on Maia's Statue to read more

RCT Bulletin Board

Posted notes and other important stuff

Phil **KC7PS** is attending the Dayton Hamvention this year (May 17-19) and wonders if anyone else is going. Maybe meet up at the big event! Email him at peshideler@netzero.net

Stick it on your calendar NOW! W7DK picnic location is now booked—Shelter #1 at Fort Steilacoom (same as years past) 8717 87th Avenue SW in Lakewood Date is SUNDAY AUGUST 4th 10 to 4

Last Month's Mystery Member:
Nick Winter **K7MO**!! He was **WA7IVO** back then (07-1970)
No—it wasn't Buddy Holly!!



Last Month's Hidden Word: OLDSMOBILE found on page 76 in the Living Histories section!!
Thanks for the emails from those who found it—the first on the list will get the stickers!





HUGE thanks to Mr. Bruce Horn, WA7BNM for publishing his "[Contest Calendar](#)" for all these many years... a truly wonderful resource for finding virtually every ham radio contest on Earth that might be happening, in most any mode and most any region in the world. Follow the link to take you to the site, then

sort through the various options to find the specifics of every upcoming event. For now, here's the **WA7BNM** Contest Calendar for the coming month



May 2024

+ AGCW QRP/QRP Party	1300Z-1900Z, May 1
+ 10-10 Int. Spring Contest, CW	0001Z, May 4 to 2359Z, May 5
+ RCC Cup	0300Z-0859Z, May 4
+ SBMS 2.3 GHz and Up Contest and Club Challenge	0600 local, May 4 to 2359 local, May 5
+ ARI International DX Contest	1200Z, May 4 to 1159Z, May 5
+ 7th Call Area QSO Party	1300Z, May 4 to 0700Z, May 5
+ Indiana QSO Party	1500Z, May 4 to 0300Z, May 5
+ Delaware QSO Party	1700Z, May 4 to 2359Z, May 5
+ New England QSO Party	2000Z, May 4 to 2359Z, May 5
+ MIE 33 Contest	2300Z, May 4 to 0300Z, May 5
+ ARS Spartan Sprint	0100Z-0300Z, May 7
+ VOLTA WW RTTY Contest	1200Z, May 11 to 1200Z, May 12
+ SKCC Weekend Sprintathon	1200Z, May 11 to 2359Z, May 12
+ CQ-M International DX Contest	1200Z, May 11 to 1159Z, May 12
+ 4 States QRP Group Second Sunday Sprint	0000Z-0200Z, May 13
+ NTC QSO Party	1900Z-2000Z, May 16
+ NZART Sangster Shield Contest	0800Z, May 18 to 1100Z, May 19
+ EU PSK DX Contest	1200Z, May 18 to 1200Z, May 19
+ His Maj. King of Spain Contest, CW	1200Z, May 18 to 1200Z, May 19
+ Arkansas QSO Party	1400Z, May 18 to 0200Z, May 19
+ Baltic Contest	2100Z, May 18 to 0200Z, May 19
+ Run for the Bacon QRP Contest	2300Z, May 19 to 0100Z, May 20
+ SKCC Sprint	0000Z-0200Z, May 22
+ CQ WW WPX Contest, CW	0000Z, May 25 to 2359Z, May 26
+ QRP ARCI Hootowl Sprint	0000Z-0100Z, May 27
+ PODXS 070 Club Three Day Weekend Contest	0000Z, May 31 to 2359Z, Jun 2



WA7BNM Contest Calendar data used with permission

THE W7DK ELMER BOARD

Do you have a skill or tool to help new hams?



YOU! YES YOU! Do YOU have a skill you could pass on to new amateur radio operators? Do you possess a skill or piece of gear that you’re willing to share with others to fix antenna problems, diagnose noise issues, drive a ground rod, teach Morse, help teach technical topics? If the answer is YES you too could be a W7DK Elmer!! Let any

officer know what your skills are or how you could help new hams get a leg up on the hobby. And if you’re one of those already on the list, are there any changes we should be aware of? If so please hit the email address (found bottom of page on the right) and let us know so we can update the W7DK Radio Club of Tacoma “Elmer Board”

NEW HAMS OR MEMBERS: If you are looking for help, and NEED AN ELMER to help guide your way, use this table! Find the skill you need on the left, then look for an Elmer Provider of that skill on the right and reach out to them. ALL of these Elmer’s have committed to helping so please don’t hesitate.

Elmer Board

Do you need help with some area in ham radio?

List of members' areas of interest.

- 1. Technical questions, Classes
- 2. Help with Code
- 3. License Examinations
- 4. Antenna and Station planning
- 5. Antenna and Tower erection
- 6. Buying new or used equipment
- 7. Equipment repair
- 8. Understanding and operating your equipment
- 9. DX and Contests
- 10. Club and ARRL activities
- 11. Using test equipment
- 12. IRLP , Digital, SDR, ARPS, Winlink, Vara, Satellite
- 13. Understanding How Electronic Circuits Work

Name/Call Sign /Phone Number/ Topic

- Adam W2NCC 360-870-7894 (4,5,6,7,11)
- Dave N7HT 253-363-1692 (1,2,4,6,8)
- Steve AF7YD 253-988-087(1,2,7,10,11,13)
- Dave W7UUU 253-820-0890 (2,4,6,9)
- Al N7OMS 253-495-9068 (10,12)
- Mike W7XTZ 253-405-8095 (6,8,10)
- Stephen AD7AB 253-212-9437 (1,3,4,12)
- Randy WB4SPB 253-761-9391 (2)
- Phil K7PIA 253-307-4781 (9,10,12)



Anne **N7ANN** and I traveled to Yakima on April 12th to attend the **N7YRC** Tailgate Swapmeet event in the parking lot of the Yakima Valley Emergency Management on the 13th. It was a lot of fun! We got to meet up with ARRL NW Division Director, Mark Tharp **KB7HDX** as well as Lynn Burlingame, **N7CFO**, who maintains the ARRL NW Division Speakers Bureau, as well as the PNW Hamfests & Events page at his website. Plus I got to see some cool gear, happy people enjoying the sunshine, and some doggies wagging happy tails.



Very nice day at the Yakima Emergency Management center for a ham fest—FREE entry for all!



*ARRL Northwest Director Mark Tharp **KB7HDX** was present and happy to share a chat and a smile*



*Lynn Burlingame **N7CFO**, ARRL Northwest Division Speaker's Bureau coordinator
info: <http://www.n7cfo.com/>*

*All photos this page provided by
Dave **W7UUU***



*I just walked on by and didn't chat...
 His look told me the whole story!*



*This was my one "take home" of the day—Heathkit
 SA-5010 in custom wooden base!! Only \$20!! 😊*



*This was a real oddball—2m FM transceiver labeled
 Swan but I'm pretty sure it was cobbled together
 from other bits and just labeled Swan!*



*Another long-time meet-up friend, Dave KA7RRA,
 made the trek over the mountains to visit the fest*

All photos this page provided by

Dave W7UUU



Stellar homebrew amplifier—built to professional specs in almost every way!



Based around a pair of 8163/4-400Z for KW operation... the amp was priced less than 1 tube's cost!



Closer view of the 5-band homebrew amplifier



Tons of Heathkit gear in hamfests these days for ridiculous low prices... alas tech has moved on and many hams don't see the value

All photos this page provided by

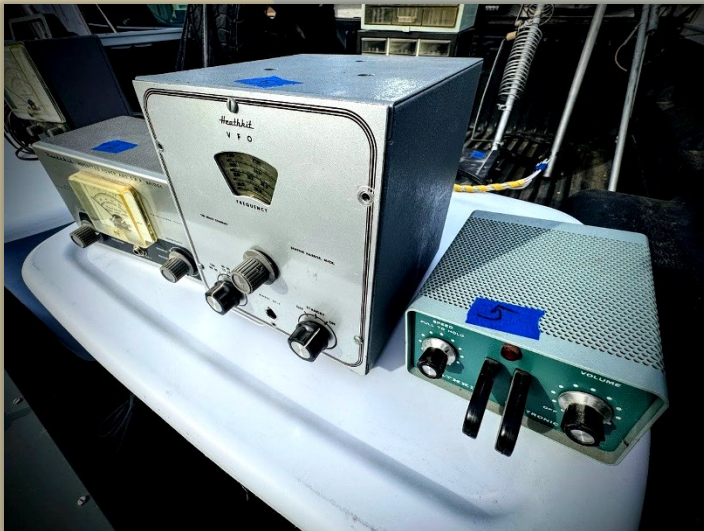
Dave W7UUU



Lots of great vendors with a good turnout of potential buyers as well



The parking lot of the Emergency Center was quite full, the weather was nice, and turnout good!



\$5 each for a working VF-1 and HD-1410... they ALMOST came home with me but alas, I mostly just take home pictures these days



*To close out, **Mr. Zeke** has a "sparkly eye thank you" for viewing... this is **N7CFO's** dog and he sure was sweet.*

All photos this page provided by

*Dave **W7UUU***

ZULU TIME

Explained

by Mark, K8MSH



The Royal Observatory in Greenwich
Commissioned in 1675
Photo: Wiki commons

ZULU TIME

Explained

SO WHAT'S THIS ZULU TIME and how does it relate to ham radio? Zulu Time is the military name for Universal Coordinated Time (UTC). Its time is fixed at Prime Meridian: 0° (zero degrees) longitude. This is the reason for its other names, Z-Time and Zero Time. Before Zulu, it was known as Greenwich Mean Time (GMT).

Greenwich Mean Time, Zulu, UTC, whatever you call it, it is the world's time. No time zones, no seasonal time changes, *just time*. For ham radio, it provides the common time base needed for accurate QSO log keeping. In a manner of speaking, all amateur radio operators, regardless of their location, are using the same clock.

Why is It Called Zulu Time?

Since Great Britain was the world's greatest maritime power when the concept of latitude and longitude was developed, the starting point for design-

ating longitude became the Prime Meridian (zero degrees). It intersects with the Royal Greenwich Observatory in Greenwich, England (hence the Greenwich in GMT). Built by King Charles II in 1675, it was for many years the major center dedicated to navigation, astronomy, and timekeeping.

Zulu Time is most often used today by the military, pilots, mariners, and hams. The purpose is *standardization*. How many military/action movies have you seen where they synchronize watches? As ships and airplanes crossed multiple time zones in one journey, it became more and more important to standardize time.

The term Zulu comes from the shortening of Zero Meridian Time to Z-Time. For a while, it was called Zebra (Zebra Time). The term Zulu Time was first used by the Royal Navy in the 19th century, conforming with the military phonetic alphabet.

How to Calculate Zulu Time

The main thing to know about Zulu Time is that it is always the same, no matter where you are in the world. Here's how to figure out your own personal version of Z-Time based on your location:

Convert your time to the 24-hour format, like the military uses. For example, if it's 2 p.m. where you are, add 12 hours to the time to get a military time of 1400. You don't need to add anything for a.m. hours. For example, 9 a.m. is 0900.



Greenwich Royal Observatory—photo Wiki commons

ZULU TIME

Explained

Adjust for the time difference (offset) where you are versus Z-Time. So, if you live in the Eastern Time Zone (EST), add four hours because the eastern U.S. is four hours behind GMT—0400+1400. This makes your Zulu Time 1800Z.

The beauty of Zulu Time is that you don't have to wonder which time zone is being referred to when you see the time. There is no AM or PM to worry about, either. Pronunciation just involves the numbers—0945Z is *zero nine forty-five hours* or *oh nine forty-five hours*. The Z indicates that the time is in Zulu (UTC) format, not local time.

Figuring out what the time is versus your local time does take some getting used to, but there are lots of apps and calculators on the web to help you figure things out, not to mention ham logging software.

Logging in Zulu

Logging in Zulu or UTC is highly recommended. Using UTC eliminates confusion over time zones or daylight savings time. Sure, you can calculate UTC on your own, but why not let your computer and logging program handle that chore? They keep the UTC date and time straight automatically. Of course, you are free to use local time as long as you indicate this clearly in the log. Avoid mixing UTC and local times and dates together in the log—use one or the other. *Remember:* if you log the time in Zulu or UTC, you must also log the date in UTC as well!

For example, N3FJP logging software reads the UTC time directly from your Windows operating system. As long as you have your time, time zone, and day-

light savings time adjustment properly set in your Windows OS, the UTC will be logged correctly.

Things You Should Know

Here are some fast facts about Zulu/UTC time:

- Zulu time does not change with the seasons, but local time may change with daylight savings time. For example, local time on the east coast of the United States is five hours behind Zulu time during winter, but four hours behind during daylight savings time.
- NOAA satellites use Zulu Time or UTC as their time reference. The satellite images that appear on NOAA's websites are stamped in Zulu Time.
- The Department of the Navy serves as the United States' official timekeeper. The Master Clock facility is at the U.S. Naval Observatory in Washington, D.C.
- UTC is not a typo. When spoken, it is Universal Coordinated Time, but when written, it's UTC. The International Telecommunication Union (ITU) felt it was best to designate a single abbreviation for use in all languages in order to minimize confusion.
- Is it 2400 or 0000? Military time uses both 2400 and 0000 to designate midnight. This may seem confusing at first, but it makes more sense if you think of 0000 as a start time and 2400 as an end time. You'd use 0000 in reference to the beginning of an activity but 2400 to indicate when an

ZULU TIME

Explained



Which UTC clock is for you?



CLASSIC Ham GMT clock! The Pennwood Numechron Tymeter model G-100. Timeless in style for sure. But annoying to set the time (you must pick it up and stick your fingers inside to turn the wheels), does not have UTC date, and these are old and collectible now, running up to \$100 or more for one in working condition. -ed



Very inexpensive UTC clocks can be found on Amazon for \$15 to \$50, depending on size and features. Some have UTC date, some don't. This model is one that I use and was \$14.99—powered by USB with battery backup for time setting. But it lacks date. -ed



All photos by
W7UUU

Have an old tablet or smart phone? You can download a FREE app called "Ham Clock" that gives you everything: local time and date, and UTC time and date. This is another of mine that was essentially free, using an old tablet I found a Big Lots for a very low price years ago. -ed

activity will end.

- Imagine not receiving a QSL card from that very rare DX entity because you used the wrong conversion when going from your local time and date to UTC. Get a UTC clock. They're not terribly expensive and worth the investment.
- People usually think that time zones are determined by whole numbers. Some countries use half-hour and quarter-hour offsets. India lies in the time zone UTC+5:30, South Australia and Northern Territory use UTC+9:30. Nepal lies in an even weirder time zone: UTC+5:45.
- A leap second is a one-second adjustment that is occasionally applied to Zulu Time to reconcile the difference between precise time and imprecise observed solar time due to variations in the earth's rotation.

So there you have it—the basics of Zulu or UTC time explained, relative to what we as amateur radio operators do in our daily operations.

The single biggest take away for ham radio, and one of the biggest logging errors made is be certain you are logging not just the time in UTC but also the date! This one error probably accounts for more "busted calls" in LoTW, QRZ, eQSL and all the other logging and confirmation systems out there

-written by Mark, **K8MSH**, with contributions by the editor. Used with permission.



Where sick radios come back to health

ONE OF THE ICONIC TRANSMITTERS of the “Novice Era” is the Drake 2NT. It was a CW-only transmitter designed specifically for the Novice Class operator, offering crystal control for the 80, 40, 20, 15, and 10 meter bands. Power could be adjusted to 100 watts but had a meter setting for Novices to dial in just 75 watts (input power of course, not output). It also offered cool features such as CW semi-break-in operation and a sidetone oscillator. These two features worked best when the 2NT was paired with the matching Drake 2C receiver. What a fine pair they made! A matching VFO was mentioned in some literature of the time, but it was never produced by the R.L. Drake Company.

Many hams today still seek

out, restore, and enjoy operation of this iconic piece of ham history. But there are some annoying pitfalls with this transmitter: it's very difficult to service much of it. Drake had just started to design with PC boards, and in the 2NT there is one board that has a great many parts on it, but it cannot be removed “in circuit” - there are over 12 “flying lead” connections to it—parts just attached to points on the board, that then terminate in

other locations. So to remove that board requires unsoldering all of those flying leads. Additionally, parts placement from the factory is pretty dodgy—with large 2-watt resistors that

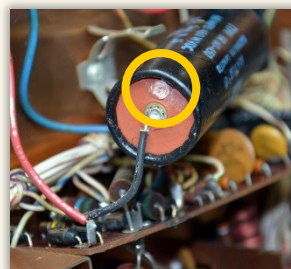
overlap and touch each other. This severely derates their temperature ratings since they are in contact with each other.



Drake 2NT Transmitter

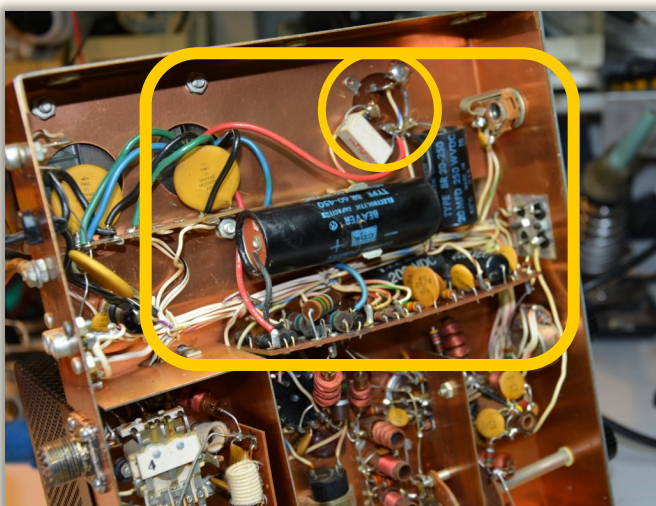
Photo ©2016 William McFadden

Being a grid-blocked design, when key-down there must always be grid drive to the 6HF5 TV sweep tube final or it will simply melt down. It's not robust like a 6146, and cannot take even a short time keyed with no drive. A few minutes at most, and after that the \$30 tube will fail.



In the case of my own 2NT, I was happily operating it one day, when suddenly the keying took off on its own then got really soft and erratic, then it

(Continued on page 36)



Inset: view of the poorly-designed central PCB; bias supply filter capacitors; pins of the HV capacitor at top

Inset: the visible indication of failure of bias supply capacitor



just stopped. My first thought

was perhaps the K1 keying relay contacts failed—always hoping for simple stuff! Alas that wasn't it. So on the bench it went for voltage checks.

It didn't take long to spot the problem: the electrolytic filter capacitor for the -160v bias supply had opened, forcing the transmitter into a fully key-down state, which explained the runaway keying heard in the receiver, until it went soft and died as the tube essentially melted down.

At this point, I decided to simply replace all of the electrolytic capacitors including the main filter as well as the bias supply caps. Fortunately, Hayseed Hamfest sells a replacement cap kit for under \$50. If you've not used their recapping products, you should give them a try—really quality stuff with kits for a large number of old boat anchor rigs.

Once recapped, the venerable Drake 2NT resumed its place in my "Novice Corner" shack, paired with a Drake 2A receiver. It went on to earn its own "Nostalgic Worked all States".

That's all for now—73 Dave W7UUU



Drake 2NT back in operation in the Novice Corner!



I highly recommend the Hayseed Hamfest recap kit for your own Drake 2NT. Includes the 3-section HV filter cap as well as the two bias supply caps. It's well worth the \$47 cost of the kit, and quite easy to install.

Click to view: [CLICK HERE](#)



Built-in Essentials and Accessories

FEATURES

- Automatic Transmit Switching puts transmitter "on-the-air" by closing the key.
- Antenna Change Over Relay automatically switches antenna between transmit and receive.
- Receiver Mute automatically mutes receiver while transmitting.
- Built-in CW Sidetone with adjustable level.
- Spotting Function enables receiver to tune to transmitter frequency without being "on-the-air".
- Low Pass Filter prevents TVI by reducing harmonics on TV channels.
- Simplified Tuning provided by broadband low level stages and fixed loading.
- PA Plate Tuning only.
- Standby Position can be used as a code practice oscillator when cabled to a receiver.
- Delay control varies delay between "key-up" and "receiver-on" from full "break-in" to about 4 seconds.
- Built in Power Supply.
- VFO key turns most VFO's off when key is up.
- Plate Meter red-lined for Novice power.

ACCESSORIES

- Antenna Matching Network.
- Crystals.

\$149⁰⁰ AMATEUR NET

SPECIFICATIONS

FREQUENCY COVERAGE: 3.50 to 3.80 MHz, 7.00 to 7.30 MHz, 14.00 to 14.35 MHz, 21.00 to 21.25 MHz, and 28.00 to 28.50 MHz crystal or VFO controlled.

MODES OF OPERATION: Break-in CW, Semi Break-in CW, or Manual CW with DRAKE 2-C Receiver or other receivers.

INPUT POWER: Variable to 100 watts.

OUTPUT IMPEDANCE: Nominal 52 ohms (SWR should be 2:1 or less).

CONTROLS AND JACKS:

Front: Key jack, band switch, 2 crystal sockets, power set, function switch, plate current meter, RF tune control, RF Indicator lamp, side tone gain control, and delay control.

Rear: Antenna connector, mute jack, receiver antenna jack, sidetone jack, external switch jack and VFO key jack.

POWER REQUIREMENTS: 120 volts, 50 to 60 Hz at approximately 2.8 amperes.

DIMENSIONS: 9 1/2" wide, 6 1/2" high and 9 1/2" deep, weight 12 1/2 lbs.

The Drake 2NT was introduced in 1966 along with the matching 2C receiver. Transmitter cost was \$149—not exactly cheap! (\$1423 in today's inflated dollars)

W7OS DOC SPIKE MUSEUM

Museum updates from the Curator

Dan
KD7SV



THE HEATHKIT DX-60 TRANSMITTER

In 1960 Heathkit introduced the DX 60 Transmitter, aimed at novice operators. This transmitter is one of the kits that Heath put out that was done right from the beginning, sometimes called the Cadillac of novice rigs. The W7OS museum has a DX 60 that we use on occasion, and it's paired with the matching HG-10 VFO. There are four sockets available for crystals and a fifth socket for the VFO, all switchable from the front panel. A precut cabled wiring harness included with the kit eliminated the hassle of much of the wiring and made for a good looking wiring job when the kit was finished.



Heathkit DX-60
Photo: W0YVA

The DX 60 has inputs located on the front for a mic and key, and on the rear inside the open-case cabinet lie the 4 crystal and 1 VFO input sockets. The transmitter operates on 80 through 10 meters, and AM phone via screen modulation (around 90 watts input or about 40 watts output) is possible—the DX-60 and its later variants can occasionally be heard on 40m and 75m AM nets.

Design features provided for great quality, performance and dependability. Features in the design include a low pass filter for harmonic suppression, a neutralized 6146B final output tube, grid block keying and a Pi network for output coupling. Since the

6146B was capable of 90 watts input (which equates to about 40 to 45 watts output), the novice operator could operate it at 75 watts by limiting the final amplifier load to 120ma.

Some hams compared the rig to the Eico 720-730 AM transmitter. In reality the only other rig (at the time) in the same class was the Drake 2NT and when it was paired with Drake 2C receiver made for a high performance full break-in station that even a general class operator would be pleased to own. But these rigs came at a much higher price tag. And like all novice rigs of this era, they gradually faded away as the No Code revolution took over.

Back to the DX 60, there are seven basic circuits and they work well in this economy class transmitter. The circuits are a 6CL6 oscillator, another 6CL6 that serves as the final amplifier driver, the 6146 Final Amplifier, a low pass filter circuit to keep the output TVI-free, a 12AX7 Speech Amplifier circuit and 6DE7 modulator circuit. The circuit design is relatively straightforward, but final tube neutralization has to be done correctly, otherwise the Pi Network coupled to the final amplifier, could pass unwanted low frequencies.

I looked at two units for sale at the Mike and Key event back in March. The first unit, was paired with

W7OS DOC SPIKE MUSEUM

Museum updates from the Curator

Dan
KD7SV



the desired HG 10 VFO, but had succumbed to a few of the problems known to the rig. The function switch is prone to arcing as there are very large capacitors that charge quickly with high in-rush current. The owner had placed an on off switch on the rear of the unit. This I felt was an acceptable solution, but there were two other mods that turned me away from the unit, even though it was attractively priced. The second unit I found was in excellent condition and I came close to buying it, but opted not to, as I felt with restoration the price was more than I was willing to spend.

If you have a desire to restore a transmitter, the DX-60 makes a great candidate for learning and a first project. There are quite a few resources available on the internet. Using a power strip to turn the unit on would save the function switch from arcing. Replacing the power cord (it comes with both sides of the plug fused and could lead to some serious hazards later) by using a 3 wire cord and a fuse. Since this is primarily a CW rig, use caution as there is about 65 volts across the key contacts (grid block keying, remember?) When cleaning switches be sure to use a contact cleaner that does not contain a lubricant, particularly on wafer switches as this makes them prone to failure.

Until next time

73, Dan Vacanti KD7SV



The original DX-60 sold from 1960 through 1964 with a retail price of \$82.95. It was a very popular seller but the fancy recessed backlit panel meter was costly so in 1965 it changed cosmetic design slightly with the DX-60A model.



The redesigned DX-60A had a few minor electronic changes, including an additional crystal socket for HC-6/U style crystals. The recessed meter was replaced with a rounded-corner panel-mounted meter. Sold '65-'67 at \$79.95



The last variant was the DX-60B from 1967-1976 still priced at \$79.95. Again, most of the changes were simply cosmetic, with yet another meter design. ■ -editor

Air-Mobile: Boeing 737

With "Con" WA7E



Air Mobile: Boeing 737

With "Con" WA7E

Air Mobile: Part 1 of 2

HOW MANY HAMS TODAY, I wonder, have ever even *thought* about working another amateur radio operator making contacts from an aircraft? I'd wager most would think of small private General Aviation craft like a Cessna 172 or Mooney 301 or any number of such planes seen in the skies on any given sunny Saturday afternoon.

So imagine their surprise to learn that not only do hams in little planes like those take to the skies with a microphone in hand, but such contacts can *also* be had from a pilot in the cockpit of a commercial airliner! Yes, you read that correctly... airline pilots who are also hams may indeed legally operate on the HF bands while in the cockpit of an airliner filled with passengers enroute from one city to the next. In fact, it's historically not all that uncommon!

Over my many years as a ham, I've worked a fair number of hams from their "shack in the sky" passenger plane. See the QSL card near the end of this article from **K6NW** who was a part of an organization called IAAH or International Association of Airline Hams, which up until recent years was still active with a regular net on 14.280

In the past month or so, I became curious and interested in the state of "Airline HF" operation when I ran across Toivo Mykkanen, **W8TJM**. Toivo was a design engineer for Rockwell-Collins, manufacturer of a large segment of avionics HF gear as used in modern airliners. He in turn connected me with a very local-to-me ham, Stefan "Con" Nagy, **WA7E**, who lives just a few miles from me. One day in March, 2024, Toivo emailed to let me know that Con was on the air at that moment on 10 meters calling CQ at 28.465! So I dashed out to the shack, only to hear him sign off his final call for that session (I later learned it was lunch time and he'd just been delivered his meal, and that *always* takes priority over ham radio time!)

But patience paid off, and 15 minutes later I heard him back on frequency and gave him a shout for a quick QSO, where I soon learned he was westbound over Iowa at 34,000 feet. He came back to my call a full S9 with a similar report about my signal from him. As with most air-mobile contacts, there are far more wanting to work the plane than the pilot has time to chat, so we kept the contact pretty short. I managed to record audio of the whole thing, and you can hear the entire [QSO on YouTube](#) if you click on the YouTube thumbnail at the end of this article.



Air Mobile: Boeing 737

With "Con" WA7E

Air Mobile: Part 1 of 2

Although a pilot for over 20 years (military service, AWACS, Lear 35), Con's amateur radio career only began just over a year ago and he's essentially self-taught, using YouTube videos and www.HamStudy.org for the sample tests.

He sat for his Technician, General, and Extra and passed them all in order during the same session and began operating HF Air Mobile from his 737 not long after. Since he was initially licensed in April 2023, he has logged over 3000 QSOs and 51 DX entities, all from the cockpit of a 737! In fact, he's not had a single terrestrial QSO at all on HF—only 2m and 440. His DX record from the cockpit is South Africa, and his longest QSO so far has been 90 minutes continuous with a station in Alaska while he was West bound at 34,000 feet. The most contacts he ever made in a single flight is 160! That's more than some testers make in the same amount of time during a big contest!

If you'd like to catch him on the air for a QSO,

he's not too hard to find... remember that although his antenna is essentially a shunt-loaded vertical (the vertical stabilizer at the tail of the plane), that antenna essentially sits atop a 34,000 foot tower and he runs 400 watts!

He's in the air 3-4 days a week for work, and usually starts out calling CQ at 18.165 in the 17m band, as a good starting point to see what band conditions are like. He then might move to 20, 15, or lately, 10 meters when conditions are good (that's where I caught up with him).

He's often "spotted" in the spotting networks, and welcomes being spotted by others so if you work him by all means feel free to spread the word after the contact.

Just note that due to heating and cooling cycles in the transceiver beyond his control, his frequency will sometimes seem to 'float around' a bit at times—so it's best to just follow him and not expect him to be precisely at a "zero or five" as is the fashion today. Just tune until you can understand him, and ignore the



Control head in Con's 737 showing the radio configured for 20 as well as 15 meters



Air Mobile: Boeing 737

With "Con" WA7E

Air Mobile: Part 1 of 2

precise number on your tuning dial.

And yes, Con *does* reply to QSL requests as his time permits... but as a busy working pilot and family man back home on the ground, it might take a while so to help speed the process, please send an SASE and be patient for a response.

Lastly, many folks working him will wonder what airline he flies for. But in the world of "commercial pilots on the air" it's considered bad form to discuss the company you work for. If it really matters, it's not hard to figure out. But all anyone really needs to know is he flies for "one of the majors" - if you need to know more, "*you can do the snooping*", as Con says.

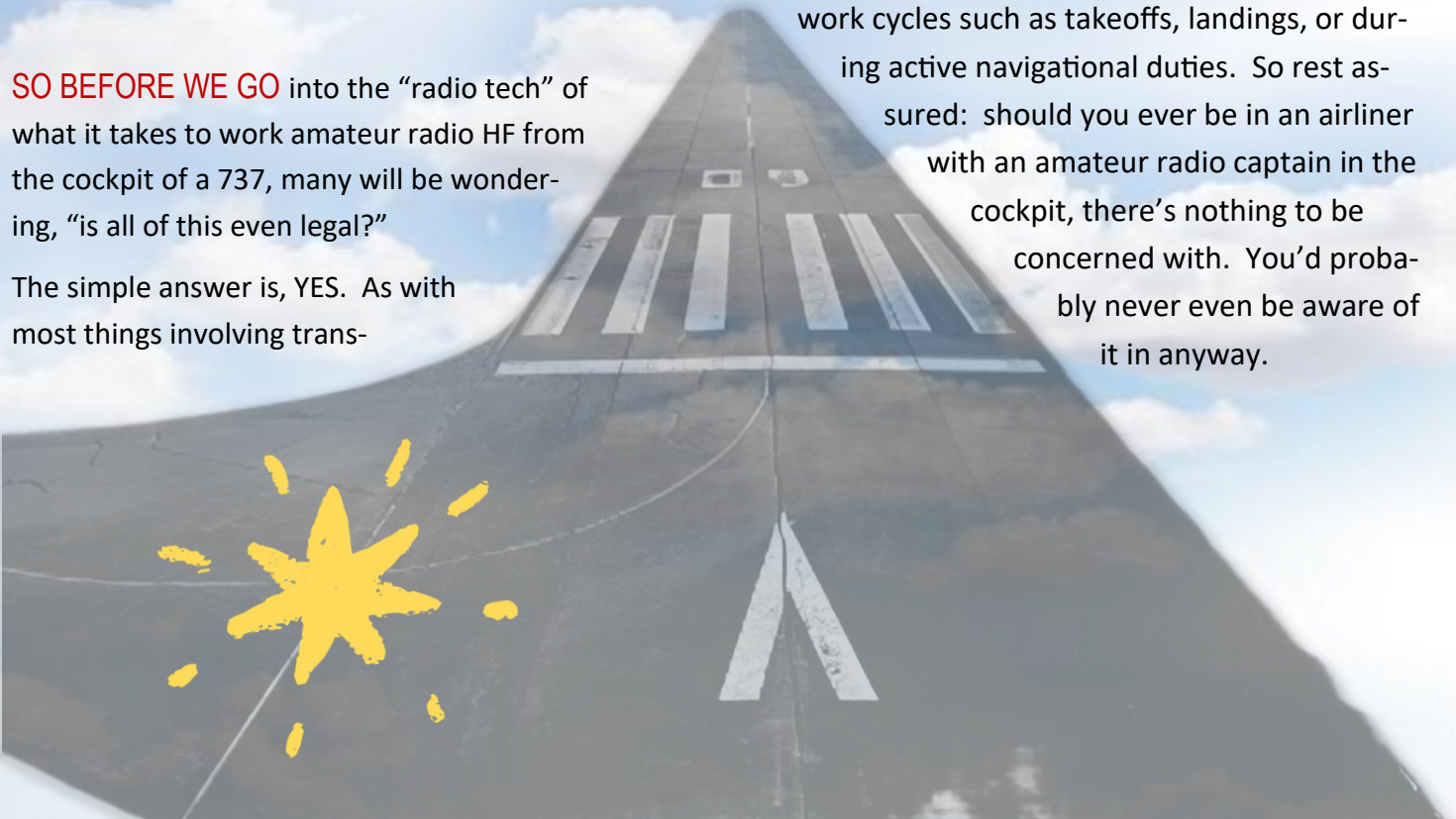
SO BEFORE WE GO into the "radio tech" of what it takes to work amateur radio HF from the cockpit of a 737, many will be wondering, "is all of this even legal?"

The simple answer is, YES. As with most things involving trans-

portation where there is a Captain at the helm and in charge, airliners are no different: it's up to the captain to decide what may be done under his command in his vessel. And given that the radios used in commercial aircraft are fully FCC certified for all the frequencies they are capable of using, and installed in full compliance of all FAA requirements, the captain of an airliner may grant the use of amateur radio communications if he or she so deems.

In the case of **WA7E** and many airline captains before him, he allows amateur radio operation from his cockpit "when the aircraft is on autopilot at cruise altitudes, and the pilot's workloads are low", Con explained.

Ham radio operation is *never* done during critical work cycles such as takeoffs, landings, or during active navigational duties. So rest assured: should you ever be in an airliner with an amateur radio captain in the cockpit, there's nothing to be concerned with. You'd probably never even be aware of it in anyway.



Air Mobile: Boeing 737

With "Con" WA7E

Air Mobile: Part 1 of 2



Collins HFS-700 & 628T-3 transceivers
(photo ©Proxibid.com)

NOW—LET'S GET DOWN to the radio tech that's involved and how it all works.

Con flies a Boeing 737 in his current career as an airline pilot, and throughout many decades, the Collins Radio Company (founded by Art Collins, **W9CXX**) and later, the Rockwell-Collins company (after 1973), provided the HF and VHF transceivers for most Boeing airplanes.

The standard transceiver for many years in most Boeing airliners has been the **Collins HFS-700** and its close variant, the **HFS-628T-3**. For our

purposes, they are essentially the same transceiver, both released around the same time in 1980. Operating from 2 MHz up to 30 MHz, the HFS-700 seamlessly covers all amateur HF bands in that range. Although, for practical purposes only the higher bands are useful due to antenna and antenna tuner constraints aboard the airframe of a Boeing 737, 757, etc.

The transceiver is capable of up to 400 watts output, and while technically designed for all standard emission types including USB, LSB, AM, and digital, in HF practice only USB and digital are used (or "data" as it's referred to on the in-dash control panel). For the purpose of this article, we'll just concern ourselves with USB since the data subject becomes quite involved when talking about the HF radio in an airliner. No, it's not FT8! The typical control head of an HFS-700 is very simplistic for the simple reason of only giving the pilots what they need and nothing more. Refer to the photos for the most com-



[Gables Engineering tuning panels](#) for the HFS-700 and 628T-3. Gables makes numerous models, from very simple to more complex. As merely a data controller, one panel can control more than one radio

Air Mobile: Boeing 737

With "Con" WA7E *Air Mobile: Part 1 of 2*

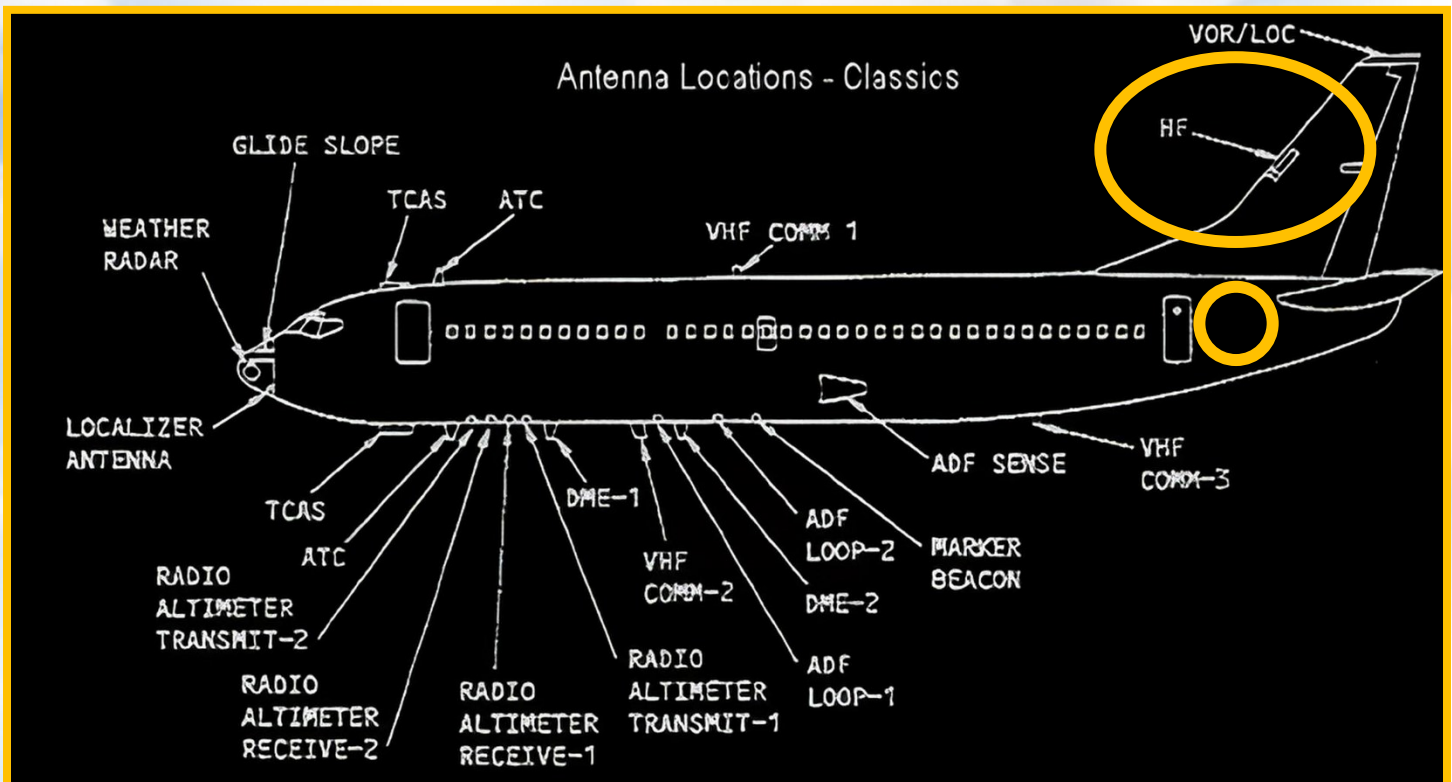
mon control for the HFS-700 in the Boeing 757 and 767 models—only a few knobs: frequency, mode, and RF Sensitivity (RF Gain).

In fact, most of the numerous control panels mounted in the dashboard of a modern airliner are actually just digital controllers, or sending units, using a robust and complex data buss to distribute digital control data throughout the airplane. This means that despite the possible operational complexity the HFS-700 or 628T-3 transceivers offer, only those features the airline customer requires are made available to the pi-

lots via the tuning panel. The control interface only sends such data to the buss that is deemed necessary for the radio operations to be adequate to the needs of the crew.

Remember that they are pilots first and lots of other things after that, but radio operators somewhere farther down the list. So operation is intended to be simple and direct, without a lot of complication and no steep learning curves such as you would find in a modern ham transceiver like an FTDX-101MP or Elecraft K4.

The actual transceiver itself is mounted inside a rack



The large yellow oval highlights the vertical stabilizer and the location of the HF auto-tuner, while the small yellow circle is approximately where the redundant pair of Collins transceivers is located in the E6-2 rack of the 737.

Air Mobile: Boeing 737

With "Con" WA7E *Air Mobile: Part 1 of 2*

in the aft cargo bay called the E6-2 Rack where it is fan cooled as needed. In a 737 there are two identical transceivers for redundancy. See photo below for a photo of the transceivers in situ on an actual 737.

The automatic antenna tuner is mounted not far from the transceiver, inside the vertical stabilizer, shunt-loaded into the metal of the structure. The tuner is capable of tuning all bands from roughly 7 MHz up to 30 MHz, although 40 meters (as I have been told) is not widely used in flight.



Photo: © Chris Brady
www.b737.org.uk

Redundant pair of Collins HFS-700 transceivers in an air plenum area of the aft cargo bay, mounted in what's called the E6-2 rack

Some older craft still use "long wire" antennas from the stabilizer to a point at the middle of the top of the fuselage (Lear 35 and some older 747s) but that's far and away the exception in the modern era.

So that's it for this installment—be sure to click the video below to hear my recent QSO with Con **WA7E**.
-Dave **W7UUU**



Click the image above to here my full QSO with Con from 34,000 feet over Iowa Dave **W7UUU**



One of numerous QSL cards I've collected from QSOs with pilots. **K6NW** was member #34 of the IAAH pilot hams club

Special thanks to former Rockwell-Collins Engineer
Toivo Mykkanen, **W8TJM**, for his technical
contributions to this article

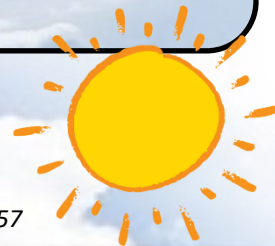
Air Mobile: Boeing 737

With "Con" WA7E

Air Mobile: Part 1 of 2

OUR CLUB'S OWN MUSEUM curator Dan Vacanti, **KD7SV**, was himself a pilot for 32 years, flying cargo for UPS. Now retired, over the course of his 32 years flying, he also had a fair number of HF Air Mobile QSOs from the cockpit of his Boeing 757 equipped with a Collins HFS-700 transceiver. ■ -editor

*Dan **KD7SV** in the cockpit of his 757*



Dan, **KD7SV**

W7DK FIELD DAY 2024

PLANNING STAGE

By FD Planner Mike **W7MKE**



W7DK

RADIO CLUB OF TACOMA—2024 Field Day Plan

By Mike **W7MKE**

Well here goes... I'm the new FD Manager for 2024, not because I'm the best but because I realized the best were tired and need help, so I volunteered. You will have to put up with my level of incompetence or volunteer yourself. BUELLER? BUELLER?

Planning so far has been informal conversations with the stakeholders and former managers and some recruiting. Last year's Field Marshal, Adam **W2NCC** provided me with a good comprehensive checklist of tasks so I don't have to remember everything. I also have received valuable insights from Gary **WG7X**, AL **N7OMS**, Randy **WB4SPB** and others and have also enrolled four station managers: Gary **WG7X** will be in charge of the 10M station using the IC-7410; Mike **W7XTZ** is going to manage the 20M station using the IC-756 Pro III; Ellen **AI7FP** will manage the 40M station using the Flex 6400M; and Dan **KD7SV** will manage the 80/15 station using the Flex

6500. They will be looking for an assistant station manager who can become familiar with the radios and logging so please approach them to volunteer.

In keeping with the acknowledgment that Radio

Club of Tacoma does not operate FD as a serious contest, but it is rather a picnic with radios, we will be less focused on QSO count and more on our core goal of training, opportunities for more operators and having a good time. We need to match available resources to these goals and not burn out the helpers.

For those reasons, we

will not have a dedicated 20m CW station this year and will operate with 4 stations rather than 5 stations, making us a 4A station for FD. We are working with the stations managers to have each station capable of operating all modes: phone, CW, and digital (FT8 & possibly RTTY). The issue with RTTY is that it pretty much requires that we use N1MM/MMTTY as our logging and decoding software and that may be just too hard to integrate both with operators, networking the station logs and we don't get much return for the hassle—especially for Randy who must



RCT Field Day 2006: Bob, **KE7DGQ** (Now **AD7LJ**) demonstrates 6m SSTV
Photo by Gary, **WG7X**

W7DK FIELD DAY 2024

PLANNING STAGE

By FD Planner Mike **W7MKE**



do much of the head-scratching, figuring out how to setup and network logs, etc. Moreover, the station managers who, except for Gary **WG7X**, have not used N1MM before. In years past we have done RTTY, but it always seemed to interfere with other modes so had to operate in its own time slot. As FT8 and RTTY are both digital modes, we should just go with FT8 for FD as most other stations will use that



Mike **W7ZTX** runs 40m Phone in the 2011 FD

for their digital mode. Meaning RTTY will probably have vastly fewer available contacts. We can set up and learn N1MM and RTTY for RTTY contests for those of us interested. RTTY unnecessarily complicates FD set up for small returns in available operators and QSO count.

Other changes are in deployed antennas. We will have available three AB-577 rocket launcher towers

this year as we acquired another one from Nick **K7MO**. We plan to have training on setting up those towers on June 8th (weather permitting) or June 15 as an alternate date. The towers will support a 10M, 15M and 20M monoband Yagis. The 80/15 station will have the 80/15 fan dipole although with the 15M Yagi, the 15M portion of the fan dipole will not be used. The 40M antenna is under review. Previously we used a combination dipole/wire Yagi. It is a good antenna but is something of a hassle to put up without lots of hands to help. We are considering replacing that with two dipoles—one for East-West and one for North-South. The positive for doing two dipoles is: ease of installation, while the negative is in having to *make* the two dipoles with baluns. So, depending on if I can round up enough helpers for the dipole-wire Yagi *prior* to building new antennas, this will determine which 40M antenna is deployed.

Other changes will be to cover our large 20 x 30 foot operations tent with dark tarps to reduce the daylight in the big tent, making it much more friendly to viewing monitors and radio controls. In the past, this has been a major issue so we need to darken the tent. I envision a couple of 15 x 30 foot tarps will do the job. This is Washington, the blue tarp capitol of the world so I already have one tarp offered. Anyone else have a big tarp for our use? Doesn't have to be blue. Color is not a design or aesthetic issue.

We plan to have station manager's final or near final integration one or two at a time at the club house by mid-May. Each manager will have available their

W7DK FIELD DAY 2024

PLANNING STAGE

By FD Planner Mike **W7MKE**



W7DK

radio, monitors, TNC, keys, computers or other gear for operating the station all modes. This will include being able to access and control radio settings for each mode (phone, CW, and digital) as well as having set up man-in-the-box and logging software. Once the integration is successful, the radio and all accompanying equipment will be in the charge of the station manager and the manager will be responsible for transport to the FD site and setting up the station. The 6400M, which is now in the Lou Room, can be replaced during it's absence with the IC-7300. As we all know, the Lou Room is not seeing a lot of operation at that station so the temporary replacement of the 6400M with the IC-7300 should not be much of an issue.

Also, station managers: while signup sheets have been available in the past, I think they will be more important this year as we have one fewer station, and CW operators will be wanting to have access to stations to operate. They will not have their dedicated station and will have to integrate with phone and digital operations at each band/station. There is no reason why everyone cannot get operation time although the ability to run a long-time pileup on any mode may be impacted by sign-ups. We simply must acknowledge this is an exercise in emergency setup and communication and an opportunity to meet and have fun with fellow club members rather than rack up the most QSOs.

Training for operators is under consideration and if we do it, it will probably be May 22 or May 29



Randy **WB4SPB** dishes up from Paul **W7PFU** at the chuckwagon when FD was held at the clubhouse in 2014

where we set up stations in the Lou Room and one in the Training Room to receive, and use one of the HF Room radios to transmit dummy signals so operators can get used to function key use and exchange protocols. If you plan to operate during FD, I encourage everyone to participate in this training. If you're an old hand, please consider being an Elmer for this exercise.

Finally, we will be at Western State Hospital grounds again this year with the layout approximately the same as in the last couple of years. Campers are welcome. Power will be provided by the club's generator and Mike **W7XH** has agreed to supervise the power distribution once again.

W7DK FIELD DAY 2024

PLANNING STAGE

By FD Planner Mike **W7MKE**



W7DK

So from here, our "To do" list:

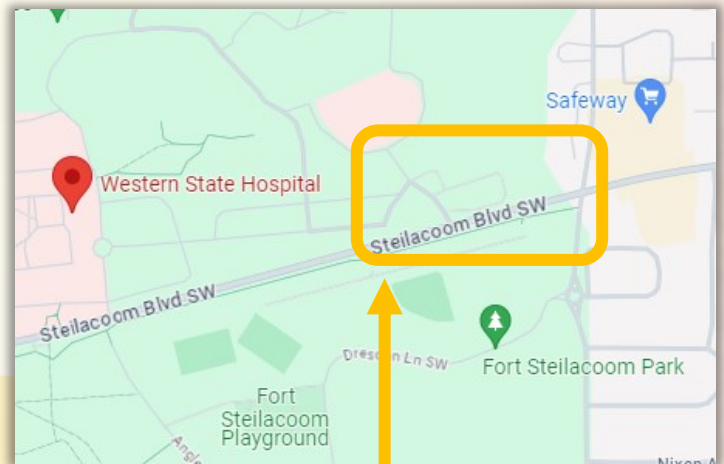
- Station Managers please get with Randy **WB4SPB** and make sure your radios, computers and all your gear is functioning. Please contact Randy and set up your time with him.
- Everyone who wants to help with setup Friday June 21 and Saturday AM June 22, please contact me Mike **W7MKE** and let me know what you can help with. We will need transportation to the site for our gear on Friday.
- Special thank you to Deanne Jenks **KA7DCX** for taking on the publicity activities once again this year. Extra Points (even if it is not a contest). Also Doug Schafer **AB7DG** is going to be our Safety Manager. And will we get extra points for contacting our ARRL Section Manager? Our very own Bob Purdom **AD7LJ**.... maybe he can answer this!
- Do not forget, this is a potluck too so check with Chef Paul **W7PFU** to see what is most needed. As always, the club will provide some of the meals.

I know I've forgotten someone so please forgive me for that. I do appreciate everyone's help.

73

Mike – **W7MKE**

2024 Field Marshal

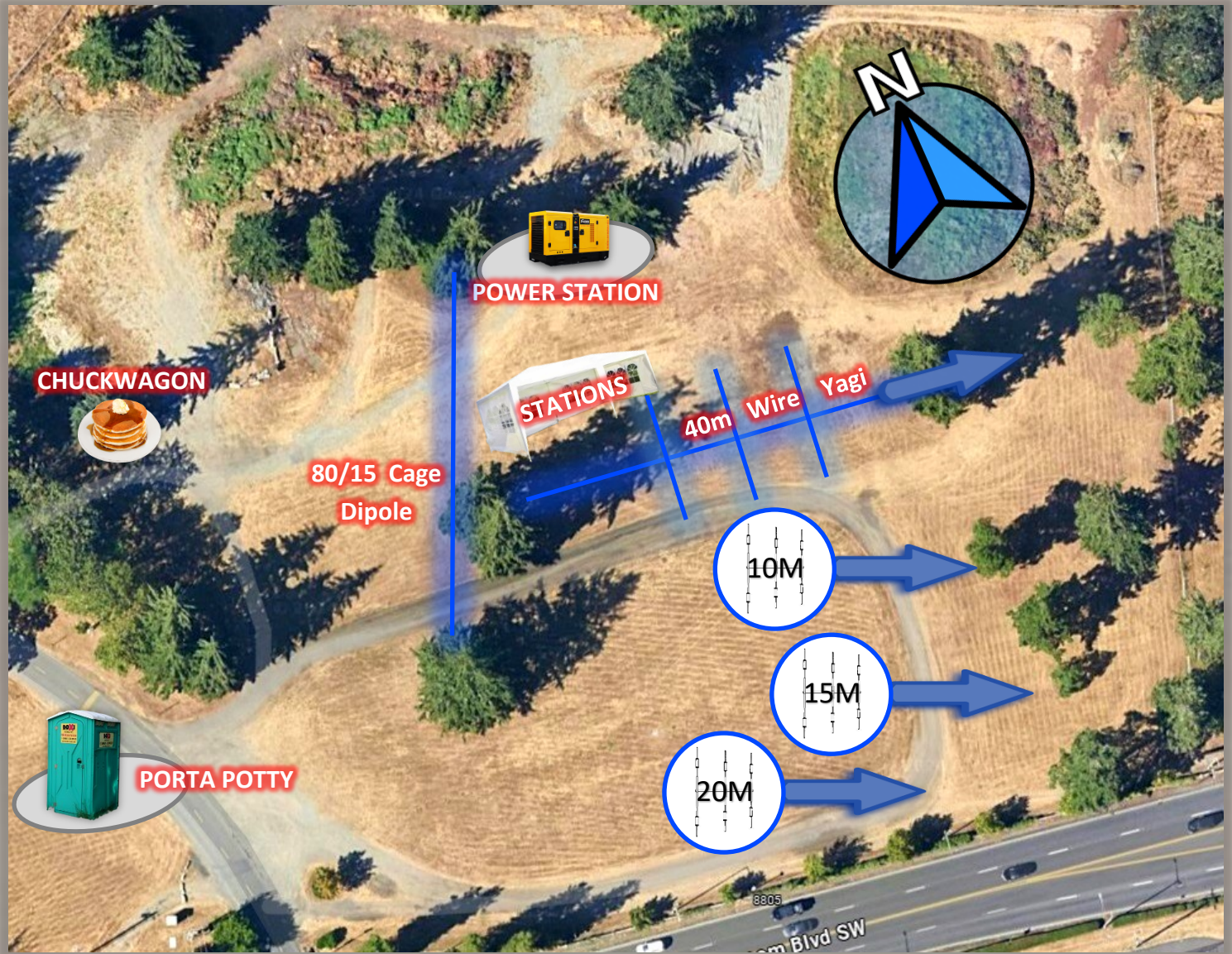


Field Day Location:

Western State Hospital
9601 Steilacoom Blvd. SW
Lakewood, WA 98498

Field day location is not actually inside the hospital entry gate but rather in the Eastern lawn area directly across Steilacoom Blvd. SW from the Fort Steilacoom Park and Playground area.

Note that despite being outside of the hospital facility proper, it is still a secured area. No drone flying or drone photography is allowed. There will be W7DK personnel on site 24 hours a day for the duration of our stay.



Radio Club of Tacoma W7DK 2024 Field Day Antenna Plan



WESTERN STATE HOSPITAL — LAKEWOOD, WA

MIGHTY DK! QSO REPORT

Reporting all the HF QSO action from the club



W7DK

EACH MONTH in the Bark, the Radio Club of Tacoma recognizes the members and guests who have made non-contest QSOs using the HF stations at our clubhouse. [Saturday Open House](#), especially, is a time when members have access to this equipment. Why not sit down at one of our operating desks and make a contact or two? Assistance is almost always available for those unfamiliar with the equipment, and if your license class doesn't permit HF operation, ask the denizens of the HF Room or the Saturday clubhouse host to help you find a suitably-licensed control operator to sit with you. It's a feather in the club's hat for the call sign of The Mighty DK to be heard on the airwaves. So get on the air and get your name in the Bark! (Don't forget to *enter your call sign* as the operator into our logging program.) ■ -editor

Clubhouse QSOs during this period:

NAME	CALL	QSOs
Mike	W7MKE	61
Nathan	KK7QND	45
Mike	W7XH	19
Becky	KG7FZH	9
Manny	AD7MA	6
Al	N7OMS	2
Randy	WB4SPB	1



Above: Walt **WA7SDY** holding court at the IC-7610

Below: While Phil **K7PIA** works the FlexRadio 6600



Photos this page provided by

Dave **W7UUU**

W7DK LOGGER'S CERTIFICATE

Classic “first award” for Members



HAVE YOU APPLIED for your own W7DK Logger's Certificate?! It's FREE and it's EASY! All you have to do is work at least 10 members of the Radio Club of Tacoma, then send in your list of call signs worked, and BAM! We'll print out your certificate and get it too you toot sweet by US Mail.

There are no confirmations required—no logs to submit—and really no rules other than the call signs you submit must be members of the club. You may work them on HF, 2m FM, on FT8 or



SSB or any other mode! In fact, one of the best ways to get your 10 contacts is to check into the weekly Tuesday Night Net on the 147.28 club repeater... every Tuesday at 7:30 PM.

This venerable award was first launched in 1957, using certificate paper printed by club member Dick Ryan, **W7RGD** who was a printer by trade.

As of the date of this publication, there have been 691 certificates issued, including a few reissues over the years to replace lost certificates.

The original certificates were hand-lettered by long-time RCT member Barbara Osborne, **W7UYL** (SK 2022), and all of the records were kept in a series of recipe boxes still held by the club.

We still have a huge stash of this beautiful OFFICIAL logger's Certificate paper.... So if you do not already have yours, just shoot us an email with your list of call signs worked, and put “Logger's Certificate” in the subject line...

Send to loggersbark@gmail.com



We also issue “Log Piles” for endorse-

Barbara Osborne **W7UYL** ca. 1955 at an RCT USO event

ments of each group of ten additional stations worked! So don't hesitate—get your Logger's Certificate or Log pile Endorsement *today!*



Wanna get yours? Send in those contacts!

THE WAY BACK PHOTO BOOTH

Highlighted photos from the club's past

Researched & Compiled by the Editor



Photo:
Jim W7LS

Have an old photo to share?



During the July 1970 Ham Fair, a unique contest entertained members and guests. It was called the "QAS Contest" and featured a commode upon which an operator sat, and attempted to send the most perfect morse using his.... rear end! In this photo President Denny Reanier **W7UBA** smiles on as Jim Hossack **W7LS** competes. He was the winner, and actually received the toilet as his prize! Jim is the lad featured in the banner at the top of this section every month. I'll leave it to the reader to figure out what QAS means!



A group of the "cool kids" hang by someone's 1964 Chevy Biscayne. Nick **K7MO** on the right



Novice-Class 5 WPM Morse testing at the July 1970 Ham Fair

THE WAY BACK PHOTO BOOTH

Highlighted photos from the club's past

Researched & Compiled by the Editor



Photo:
Jim W7LS

WHO IS THIS MYSTERY MEMBER?

that HAIR!

If you think you know
who our Mystery
Member is, just send
an email with your
guess... first correct
responder will win a

**FREE QRZ
Bumper Sticker!**

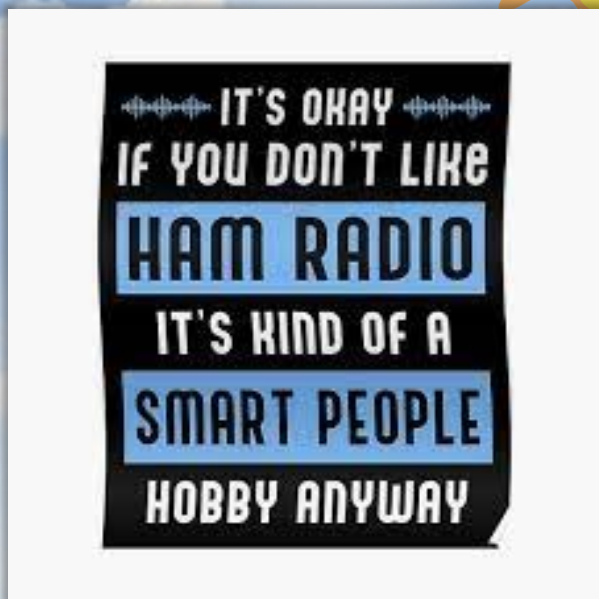
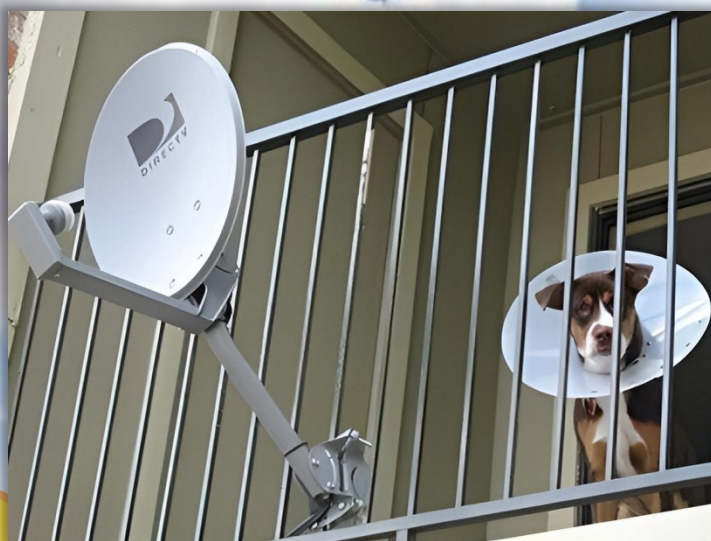
Mailed right to your
door!



Wanna be featured?
Send in your photo!



Bob receives a QSL card under his door and is intrigued, especially because it is the closet door!



HAMXIETY



THE FEAR OF ANTENNAS NOT WORKING CORRECTLY ONCE THEY ARE MOUNTED ON TOP OF YOUR TOWER.



Got a ham radio funny? Send it in!!

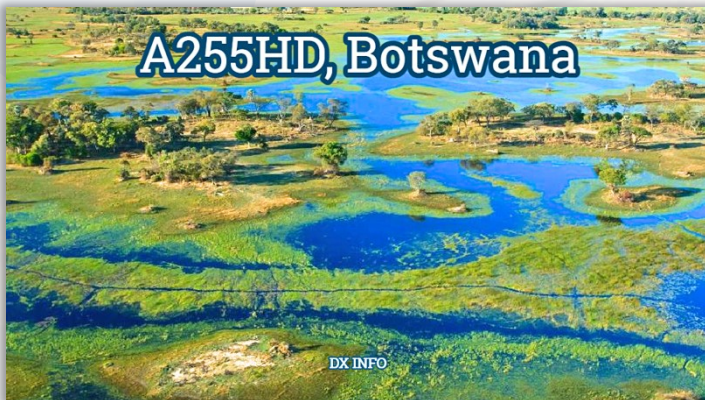
HOW'S DX?

DXpeditions and Notable DX operations



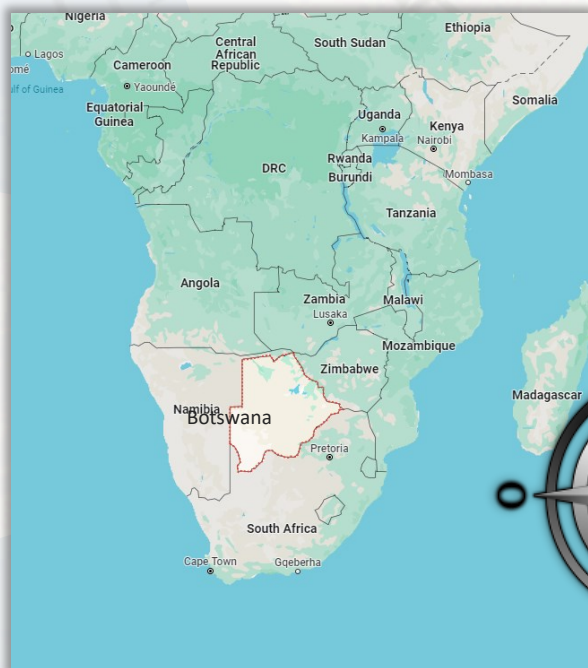
WEB

A255HD, Botswana



DX INFO

Remo Michel, **HB9SHD**, of Switzerland will be activating Botswana as a “vacation DXpedition” in a casual holiday style sort of operation. He will be operating until May 13, 2024 operating a Yaesu FT-891 into an end-fed halfwave antenna. Bands and modes to be determined. His license for this event will be **A255HD**.



A255HD will be active from Botswana through May 13



From May 30 to June 10, 2024, Dave **WJ2O** will be active from Pitcairn Island. The call sign has been assigned as **VP6G**

They plan to be QRV from 10 to 40m (maybe 80-160m) in CW only. Meralda Warren - **VP6MW**, has been a great help, and asks that anyone who wants to donate a piece of equipment, because of the great work she does keeping the island active, to let her know, and she will see if she can pack it up to take away. QSL via **N2ZN** and LoTW.



WJ2O will be active from Pitcairn Is. 5/30 to 6/10



AS THE WEATHER WARMS UP here in the Pacific Northwest, club members can expect to see more Parks on the Air (POTA) and Summits on the Air (SOTA) activities. In March John Sherrill, **N7TES** hosted a POTA activation at Saltwater State Park in Des Moines, Washington. It is a relatively small state park and can be quite busy on the weekends. But it has plenty of open space and picnic tables for setting up our portable operations, and being right on the banks of Puget Sound the park offers great views of passing boats and the Olympic Mountains in the distance.



Saltwater State Park, Des Moines, WA

Although there was still a slight chill in the air, the sun was out and overall it was a beautiful day. We set up 3 portable stations running SSB, CW, and FT-8 modes, and Leah Ives, **K7IPT** even made some 2-meter contacts. We had several club members attend the event to learn more about our POTA activations and I hope to see more club members join in the fun!

POTA activations are a great way to not only learn about portable operations, but also to discuss radio setups and different types of portable antennas. Our club activations are not focused on trying

to make hundreds of QSOs; instead we share ideas and experiences and learn from each other on improving our skill and knowledge of amateur radio. Our club POTA activations are a great opportunity for new members, and newly licensed operators to come out and learn firsthand about different modes of operation, antenna tuning, and even getting on the air to make contacts on HF bands!

The Parks on the Air program established the third weekend in April as the Spring [Support Your Parks Event](#), and this year the Radio Club of Tacoma hosted 2 activations. The first POTA activation was on Saturday, April 20th again at Saltwater

State Park beginning at 1 PM. Then on Sunday, April 21st the club hosted a pot-luck activation at Lake Sammamish State Park starting at 10 AM. We'll post up photos and a summary of these events in the June issue.

I would also like to remind everyone that any club member can organize and host a club POTA activation. If you are interested in hosting a club sponsored activation please contact me at potaops@w7dk.org.

Got a POTA story with pics? Send it in!



L>R: BJ **WA7WJR**, John **N7TES**, Leah **K7IPT**, Dave **KK7NYW**, Mike **W7MKE**, Jim **W7VK**, Robert **KK7PNV**



John **N7TES** smiles from his Elecraft K3 rig, complete with Hammer of the DX Gods on hand!



Mike **W7MKE** and Doug **AB7DG** laugh about the poor propagation conditions this day!



Photo by: BJ **WA7WJR**

Leah **K7IPT** works a 3-element Yagi for some hard-earned 2m contacts from the beach

Got a POTA story with pics? Send it in!

Photos by Dave **W7UUU**
except as noted



SINCE THE APRIL **LOGGER'S BARK** issue where I introduced the premise "How do we engage our youth into Ham Radio," I have been asking hams, a more focused question: what might the attraction forces be to engage 9-year-olds into Ham Radio. My observation has been at age 9, these youngsters have what they need to learn what they need to become licensed. Therefore if they have what they need to learn about radio communications, electronics, computers and robotics then what might be attraction forces to catch a 9-year-old's sustained interest? For example what books might a nine-year-old read to help stimulate interest?

Randy **WB4SPB** put me onto *The Hardy Boys: The Shortwave Mystery* by Franklin W. Dixon that he had read as a boy. I obtained a copy and read the story. I found it a story of intrigue, a mystery of clues leading to clues leading to more clues—a clandestine repeater being used as part of an industrial spy ring. The Hardy brothers being hams and applying their ham operating skills to bring down this ring of thieves!

Sue Schub **KF7SOW** introduced me to *Radio Rescue* by Lynne Barasch. Lynn tells the story of her father's **2AZK** 1923 experience as a ten year old in New York City, in the early days of wireless communication when messages were passed with Morse code. Several stories of summoning aid and rescue are revealed, including arranging for a Coast Guard Rescue

of a Key Largo family during a 1926 Hurricane. Exciting stuff that Ham Radio is still doing today.

What other books are out there? Ask your friends for leads. Know anyone who writes or illustrates children's books? I would like to meet them!

Recent Happenings

On March 30, I joined the [Camp Quest Northwest](#) Leadership Team for planning their summer two 1-week camp activities. This weekend included about 20 high schoolers that had graduated into the CQNW Leadership Track. As I arrived on Saturday I was delighted to witness these kids brainstorming ideas for summer camp activities and then multi-voting – selecting activities for summer camp.

I was there to help with proof-of-concept about conducting hidden transmitter hunts for the summer-camps. Several of the counselors introduced me to the steep hill side forest and trails. We picked out a site to place a hidden transmitter. Finding a not too easy but not too difficult location was the intent.

That afternoon two youth hunting teams were outfitted with tape measure 2M beams, offset attenuators, and hand held radios that have many-bars S Meters. I decided for this exercise to keep the two teams within voice range of each other. As we started out I gave some basic instruction about pointing the beam, reading the S-Meter, adjusting the atten-



Got a Youth radio story? Send it in!



uator. The hunters were able to hear the Fox (the hidden transmitter) and get a starting bearing. So off we went. Camp Leaders Sam **N9MII** and Becky **KG7FZH**, Nathan **KK7QND** and Semra As we traversed the trails, the hunters had numerous false bearings. I had them try both vertical and horizontal polarization with their beam—pointing the beams vertically and rotating—correlating signal strength with antennas. Eventually Sam announced we are here but had not yet seen the transmitter. It was on the back side of the large cedar tree he was standing next to.

In summary: Again I ask—what might the attraction forces be to engage 9-year-olds into Ham Radio? Exciting books and Hidden transmitter hunts are two ideas we've discussed here. What else? Frequently I hear "Space Station", satellites, high altitude balloon tracking, listening to signals bounced off the moon. All great ideas. Who do you know of that has these talents? I would like to meet them! It will take all of us doing some small bit along the way.

One last item:

[SEA-PAC 2024 Ham Convention](#) will be taking place May 31-June 2 in Seaside Oregon. Steve Goodgame, ARRL Education & Learning Manager, will be presenting at 10AM Sat. in Seaside B. His presentation: *Helping Youth Find Amateur Radio*. I would like to meet up with all who have an interest in bringing our youth to Ham Radio at that time and place.

For now, 73

Steve **AF7YD** stevedightman@rainierconnect.com



EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics

By Doug AB7DG



IN RECENT ISSUES of the Logger's Bark ([March](#) pgs. 66-68; [April](#) pgs. 66-71) I shared an overview of the "I AM SAFE" system for transmitting disaster survivors' welfare messages to distant loved ones. We assume that a disaster will render phones and email unusable. In the April article I described the initial steps that a volunteer (Welfare Message Collector, or WMC) would take: obtaining intake data from survivors, entering it into a Winlink template, and saving each template's data to a small text file. Each small text file's name will identify the survivor's name, date and time of its creation. The WMC then needs to transfer the collection of small text files to a ham station with backup power and Winlink HF capability.

We need to recruit and train club members and other hams (I'll here call them Welfare Message Transmitters, or WMTs) throughout the county who have such stations and are willing to transmit I AM SAFE welfare messages to Winlink gateways beyond the disaster-impacted area. The WMC needs to deliver the text files to an WMT. If practical, the WMC can save the text files on a USB thumb drive and deliver that to a WMT. If no WMT is physically accessible to the WMC, he or she can use a laptop and a hand-held, mobile, or base station to transmit the text files to a local WMT's station as a Winlink peer-to-peer message sent by VARA FM, Packet, or other mode. If the WMC has a large collection of text files (such as from survivors at a college or shelter), it may be more efficient to compress the files into a single .zip file (as discussed below) that is attached to the Winlink message sent to the WMT.

If the WMT receives a small number of welfare text files, then the WMT can process and send each one separately.

If the WMT receives a large number of them, either separately or in a compressed .zip file, the processing is explained below. To process a welfare text file, first notice if the file's name includes "Quick Welfare Message." If so, open Winlink's template titled "RRI Quick Welfare Message.txt" (see figure 1) that displays in your computer's browser, and click on the template's button reading "Load Quick Welfare Data" (see figure 2) then select the text file. It will then populate the template's fields. Then click the template's "Submit" button (lower left corner) to enter the template's data from the browser to the Winlink app's new message window. It will then be addressed to the distant loved one's email and/or cell phone and will include the short "I am safe" message phrases. (see figure 3) The WMT then posts that new message to Winlink's Outbox. When the WMT transmits that message by a Winlink HF mode to a gateway beyond the disaster-impacted area, that gateway will route the message to the Internet, and it will be delivered to the distant loved one in the manner that it is addressed (i.e., as a cellphone text or an email).

But if a welfare text file's name includes "Welfare Radiogram," then use the same process but open the Winlink template titled "RRI Welfare Radiogram.txt" (see figure 4) and load the text file's data into it. That template is used when a survivor did not know their distant loved one's email address or both cell phone and carrier. It will require the assistance of RRI volunteers to reach the distant loved one. So the filled-in template should show in the lowest field an RRI Region number corresponding to the loved one's state or province, and an RRI volunteer from that region will route it via the RRI traffic system to

Got an EmComm story to tell? Send it in!

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics



reach the distant loved one. After loading the text file data, the WMT clicks "Submit" to transfer the template's data to the Winlink app's new messages window. It will be in a format used by the RRI traffic system. (see figure 5) The WMT posts the message to Winlink's Outbox, and when the WMT transmits that message to any Winlink gateway unimpaired by the disaster, it gets routed to the addressed RRI Region's liaison for handling on that traffic system.

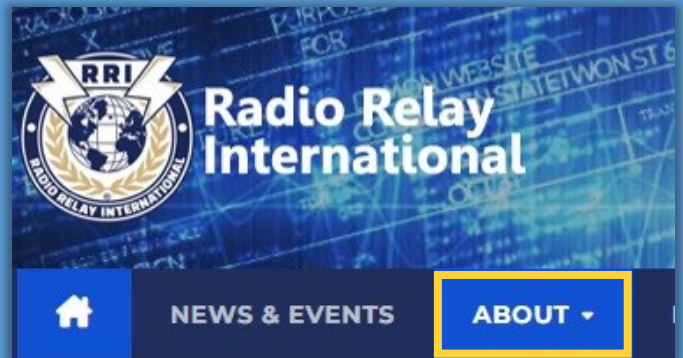
If a WMT receives from a WMC a zipped file with compressed welfare text files, or if the WMT receives a large number of welfare text files from one or more WMC, the WMT might first compress them into a single .zip file. (For one such app, see www.7-zip.org.) That's because using a Winlink HF mode to an unimpaired distant gateway, it will be more efficient to transmit a single message with an attached compressed .zip file than to send a large number of individual welfare messages, and much less burdensome to the WMT. But the message will need to be addressed to an RRI volunteer or other ham who, by prior arrangement, will be willing and will know how to unzip the collection of welfare messages and send each one individually in the manner described above. This will require significant advance arrangements that are yet to be made.

I hope that we will be able to recruit and train a sufficient number of WMCs and WMTs to be able to serve our county's residents and guests should a major earthquake or other disaster impact our county. Please contact me if you are willing ■

Doug Schafer, **AB7DG**, RCT EmComm Chair

FIGURES 1-5 AS REFERENCED FOLLOW BELOW

RRI Radio Relay International Links you can use



Got an EmComm story to tell? Send it in!

email loggersbark@gmail.com

email loggersbark@gmail.com

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics

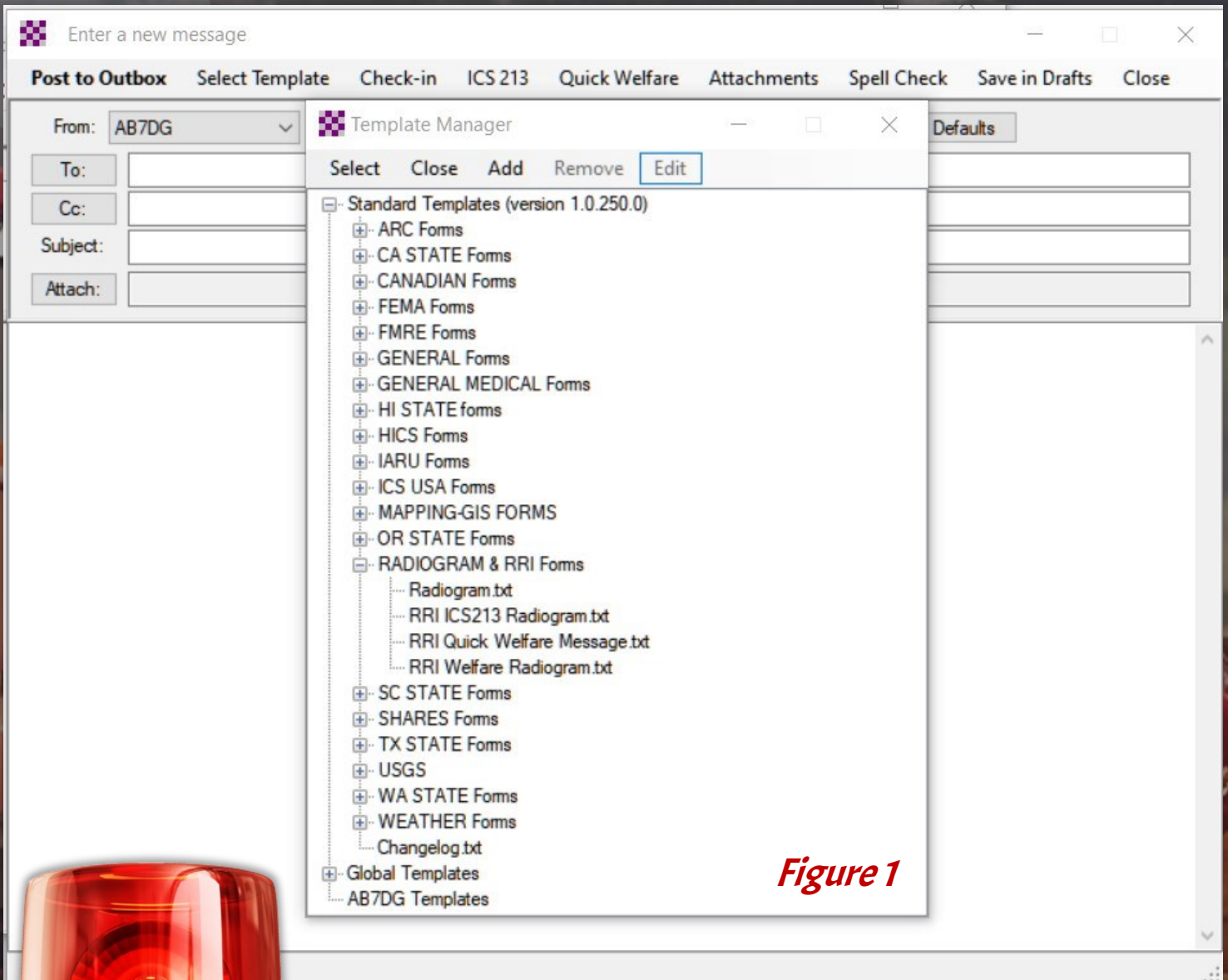


Figure 1

Got an EmComm story to tell? Send it in!

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics



RRI Quick Welfare Message

Vers 2.3.2

This form is used to send information or a status report to family members or friends.
Suggest more than one E-Mail address to increase the chances that someone will get this message.

>> NO REPLY is expected, nor can one be processed. The requester needs to be informed this is a ONE WAY outbound message. <<

[Operator Info - Read Please](#)

[Load Quick Welfare Data](#)

From Name

Date / Time (Local)

To Email (s)

Add a Cell phone number:

[Click to Enter Cell Number and Text Address in To Line](#)

Incident / Event Location or Region / Area Name

Message

Charcter count:

[Click here to insert short prepared messages](#)

I am safe and well. Currently at shelter. Will contact you when able. Share this message with others.

The message is formatted as plain text in the body of the sent email, and easy to read by the recipient (s).
For questions, comments or suggestions about this form contact KB1TCE via Winlink.

Figure 2



[Got an EmComm story](#)

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics



Enter a new message

Post to Outbox Select Template Check-in ICS 213 Quick Welfare Attachments Spell Check Save in Drafts Close

From: AB7DG Send as: Winlink Message ☐ Request message receipt Set Defaults

To: RRI-Region10;

Cc: RRI-ARCHIVE

Subject: QTC 1 W MIDWEST TOWN KS FROM SALLY SURVIVOR

Attach:

7 W AB7DG 22 TACOMA WA 1835I APR 15
RELATIVE 2
123 45TH ST
MIDWEST TOWN KS 66501
316 123 4567
OP NOTE PHONE IS LAND LINE
BT
I AM SAFE AND WELL
X CURRENTLY AT SHELTER X
WILL CONTACT YOU WHEN ABLE
X SHARE THIS MESSAGE WITH
OTHERS
BT
SALLY SURVIVOR
AR

Express Sending Station: AB7DG
Template Version: RRI Welfare Radiogram v. 2.4

Figure 3



Got an EmComm sto-

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics



RRI Amateur Radio Welfare Radiogram Text Creator

[Read Help and Instructions!](#)

[Load Welfare Radiogram Data](#)

Number 7	Precedence W TEST W	Handling Instructions NONE	Station Of Origin AB7DG Change if not you.	Check 22	Place of Origin TACOMA WA Location where this message was created	Time 18351 UTC default unless otherwise noted	Date APR 15
--------------------	----------------------------------	--------------------------------------	---	--------------------	--	--	-----------------------

TO:

Name:

Address:

City / Town: State or Province: [2 Letter Codes](#) Zip:

Country:

Phone: Extension: E-mail:

Op Note for Message Delivery:

MESSAGE TEXT Check: [Click here to insert short prepared messages.](#)

I AM SAFE AND WELL X CURRENTLY AT SHELTER X WILL CONTACT YOU WHEN ABLE X SHARE THIS MESSAGE WITH OTHERS X

[Click here to preview for accuracy BEFORE you SUBMIT](#)

Signature (name) of person for whom message originated:

>>> [NOW CLICK HERE and select a Liaison Station](#) <<<

Figure 4

Contact KB1TCE about this form: Ver 2.4

Got an EmComm story to tell? Send it in!

email loggersbark@gmail.com

EMERGENCY COMMUNICATIONS

Amateur Radio EmComm News & Topics



Enter a new message

Post to Outbox Select Template Check-in ICS 213 Quick Welfare Attachments Spell Check Save in Drafts Close

From: AB7DG Send as: Winlink Message ☐ Request message receipt Set Defaults

To: relative#1@comcast.net;2531234567@tmomail.net;

Cc:

Subject: I Am Safe Message From Sally Survivor - DO NOT REPLY!

Attach:

It Was Sent From: Western WA earthquake
Original Message Created: 2024-4-15 17:00 (Local)
I am safe and well. Currently at shelter. Will contact you when able. Share this message with others.

This is a ONE WAY email sent by Amateur Radio Operator: [AB7DG]
via the Winlink Radio System. www.winlink.org

Express Sending Station: AB7DG
Template Version: Quick Welfare Message. 2.3.2

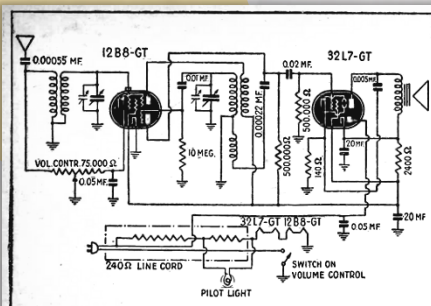
Figure 5



Got an EmComm story to tell? Send it in!

Fun stuff for Hams to read!

W7UUU



This plastic cabinet has a carrying handle of the same material. All the efficiency of the original radio has been preserved even though parts are much closer together than in the original miniature Emerson receiver.

A two-tube receiver in an attractive plastic cabinet

By IRVING MINTON

80 years ago, [Radio Craft Magazine](#) ran a fun DIY 2-tube AM radio project by Irving Minton, including a “modern” homebrew plastic cabinet!



Cool Tool



ONE OF THE
HANDIEST bench

tools I own is the [Peak Atlas LCR45 LCR and Impedance meter](#). It's an automatic "passive parts identifier". You simply clip the test leads on any component you like, and it will tell you not only what type of component it is, but what the value of it is. It's especially handy for kit building, where the parts these days are so tiny it's hard to read the color codes. It's always a good idea to verify a part's value before soldering it in. Sure you can use other cheaper instruments to ID parts, but not as quickly and sometimes you can't tell if you're looking at a resistor or molded inductor. The Peak Atlas sorts that out for you fast! It's not cheap, at \$137 but if you work a lot with small hard-to-ID parts, it can be a real advantage to have on your bench. ■ *-editor*



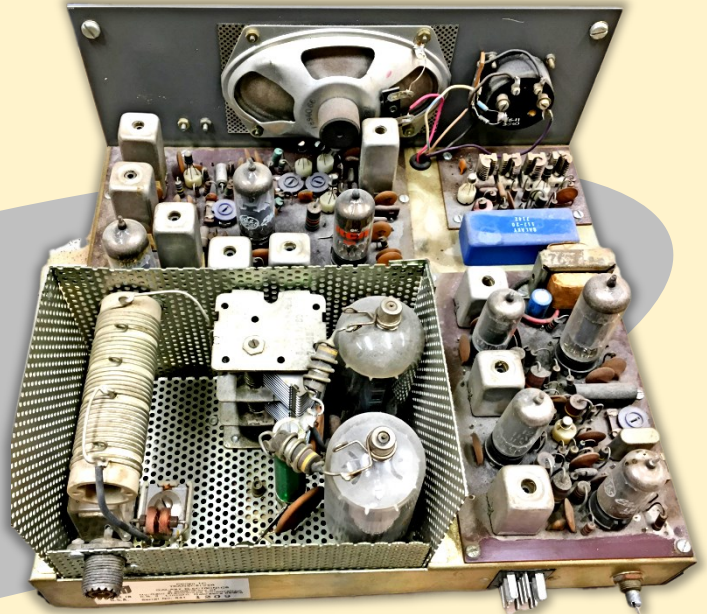
STRAY TOPICS OF INTEREST

MYSTERY RADIO



W7UUU

THE FOLLOWING COMES in from Rich KR7W



INTRODUCING THE Galaxy SSB-Comm 1C and AC-400 Power Supply. It was acquired from friend John KOIP for \$25 bucks. I only wanted the power supply, but was forced to take the whole package.

I bought the AC-400 hoping that it would substitute for the Heathkit HP-23 Power Supply to power a newly acquired Heathkit HW-22 40 Meter SSB Transceiver acquired at the recent Mike & Key Club ham fest in Puyallup.

Removing the cover reveals that the 4 frequency determining crystals are missing. Since it only operates on upper sideband, it might have been fun to set up 4 discrete 20 meter frequencies.

The final-amplifier output tuning uses the [Ronco Chicken Cooker](#) methodology also known as "set it and forget it" - meaning there are no user adjusta-

ble final amp or antenna tuning controls available. It was clearly designed for fixed operation.

The 6LB6 power output tubes are color TV horizontal output tubes, capable of 990 VDC on the plate.

Below info is from Galaxy Era Equipment List as gleaned from www.AMFone.net:

Galaxy COMM-1C: commercial transceiver; 1969 vintage; price \$229.00; ideal for Civil Air Patrol; in essence a revised Duo-Bander for crystal controlled operation; 4 channels within a 250 kilohertz range, upper sideband only; 3.0-15 MHz excluding 5.25-5.75 MHz and 10.5-11.5 MHz; sensitivity 0.5 uV for 10 dB S+S to N ratio; IF frequency 5.555 MHz, 2.7 KHz bandwidth; power output 250 watts PEP; weight 15 lbs.

STRAY TOPICS OF INTEREST

MYSTERY RADIO



W7UUU

The Comm 1-C radio requires:

- +900 VDC at 445 mA for the 2 Final Amplifier tubes
- +350 VDC at 200 mA for the remainder of tubes
- 100 VDC bias for the Final Amp tubes
- 12 VAC at 5 A for tube filaments
- +12 VDC at 200 mA for relay control and transistors

Galaxy AC-400: power supply; 1968 catalog; price \$79.95; AC power supply for Galaxy V Mk II, Mk III, GT550; operates from either 115 VAC or 230 VAC; weight 20 lbs.



THE AC-400 POWER SUPPLY is easily capable of providing the needed voltage for the Galaxy Comm 1C. This is the same power supply that powers the **W7OS** Museum's Galaxy-3 SSB Trans-

ceiver. However, the AC-400s two high voltage outputs are both about 100 Volts higher than the HW-22 uses.

Note 1: Seems like if I add a 12VAC Filament XMFR, wired as a bucking transformer.... my math sez that the 900 VDC will become 824V.... and the 350 will become 309. Perhaps close enough for the HW-22.

I've had good luck with Buck XMFRs... i.e. h SX-101 Mk 3.

Note 2: With the ProgRock2 (digital crystal replacement from QRP Labs), which outputs Square Waves for quartz crystal use, a variable DDS Oscillator with LCD display could easily become a VFO to substitute for the 4 missing XTALs.

Note 3: A few years ago... I refurbished the Museum's Galaxy 3 AC-400 Power Supply. I remember one of my concerns was with 900+ VDC under the hood—it could easily arc over to the chassis or through the umbilical cable insulation to GND or another wire.

The Galaxy 3 generated a great amount of heat above the FA cage, hence a 12V fan with magnetic feet, sat atop the steel cover. So that's the end of my report on this "mystery radio".

Rich **KR7W**



STRAY TOPICS OF INTEREST

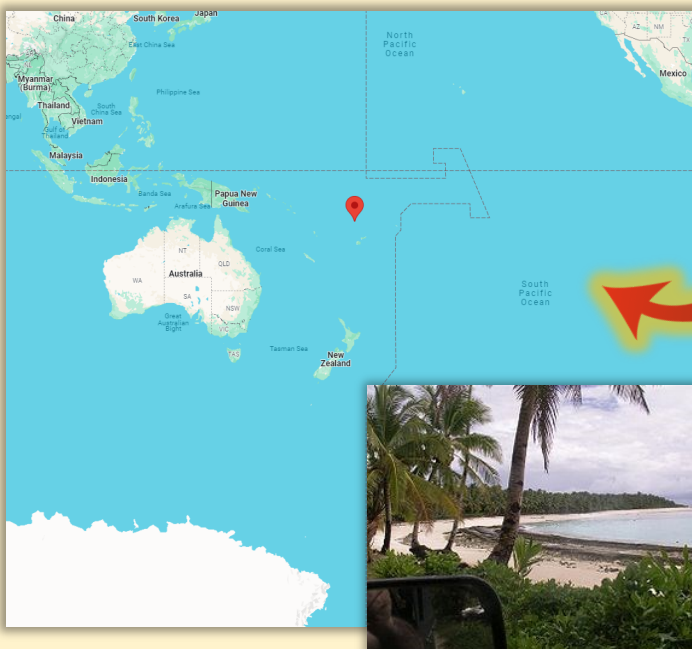
Fun stuff for Hams to read!



W7UUU

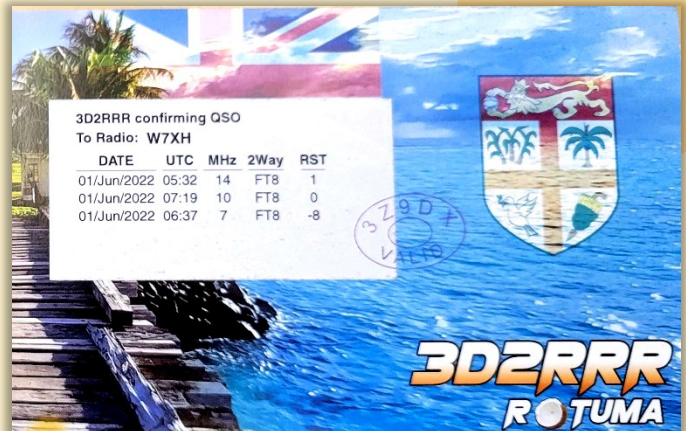
Hidden Word Contest!

Somewhere in this edition of the Logger's Bark is a hidden word. If you are the first to find that word and report it to your Editor, you will win a free QRZ Sticker mailed to you! **This month's word is a BRAND OF CAR** It will be hiding in a sentence—just tell your editor via email what the word is and the page and you will win if you are the first!



Map: Google Maps; Inset: Wikipedia

QSL Card of the Month



QSL submitted by: Mike W7XH

Rotuma is a self-governing island that is a dependency of Fiji. Of all the islands in the Rotuma group, the one that bears its name is the only one that's inhabited. The **3D2RRR** DXpedition operated during May and June of 2022. The team consisted of three operators, all from Fiji: **3D2SP**, **3D2EQ**, and **3D2USU** but they managed to rack up a very respectable 64,206 QSOs on 10 amateur bands from 80 through 6 meters, using all modes. ■ -editor

Do YOU have an interesting QSL? Send it in!

W7DK LIVING HISTORIES

Member video interviews and profiles



BACK IN 2015, when I was helping to organize the W7DK Centennial Banquet and Celebration, I asked about possibly recording video interviews of club members for future generations to learn more about those that came before them. However, that plan like so many things in life, sort of slipped by the wayside and I truly regret not revisiting such a project much sooner.

The fairly recent loss of our most senior member, Worth Gurley, W7WG, a true friend to all who knew him and to strangers alike, reminded me of the extreme importance of capturing aspects of our members lives and involvements not in only ham radio, but

also with the Radio Club of Tacoma.

So I've finally got that "round TUIT" that I should have found sooner and have embarked on recording what I am calling the W7DK Living Histories Project. For this effort I video a short (15-20 minute) interview with our members in a free-form format to allow them to share some insights into how they came to amateur radio, and how they became involved with the Radio Club of Tacoma.

So far I have produced a small number of these videos but it's an ongoing process, and I hope to

continue until all members who wish to participate have had a chance to do so.

One of the challenges of any such project is where to store the data that is the encoding result of all the video that is produced and edited. If stored on a local computer such as at home it is subject to the failures we all know can happen: fire, elec-

tronic failure, physical loss (where did I put that hard drive?) or other calamities. Storing at the clubhouse doesn't fare any better in the long run.

So the videos are being uploaded to YouTube, where they have a strong chance of remaining there for a great many years to come. Several

are already uploaded, with several more in editing and more on top of that slated to shoot.

I hope to record such histories of ALL members who wish to tell their stories—please contact me if you would like to participate.

Please enjoy this series of videos, with a new link every month. Click the image to watch video

W7DK LIVING HISTORIES PROJECT #5



Click picture to watch the video



W9EVT (SK)



W7UD (SK) Hank Perozzo

This is a photo I took of the first shack I ever saw. It literally was a shack, in the sense it was a very small camping trailer outside the home of its owner, Hank Perozzo **W7UD**, who was the first ham I ever met. I had just got my Novice license when I heard Hank calling CQ on 40m one Saturday in March of 1975. I had a '73 Callbook so I looked him up, then found his phone number in the phone book. The next day, Sunday, my Dad drove me the 3 miles to Hank's house and I brought my Mom's camera. It was so amazing meeting Hank and seeing him operate all this cool gear in his tiny shack. Hank was a good friend and "Elmer" to me back then. ■ -editor

TNT THE NEW HOT THING

Hot and new products to think about



W7UUU

TRULY ONE OF THE HOTTEST new QRP radio products in recent years is the (fairly) newly introduced QRP Labs QMX feature packed micro transceiver. About the size of an Altoids tin, the QMX covers 5 bands, with 5 watts RF output on CW as well as on all the WSJT-X modes (FT4, FT8, JSCall)



QRP Labs QMX
\$95 in kit form
Photos: QRP Labs

and also RTTY, Olivia and numerous other modes that use FSK modulation (no phase modes however, like PSK).

What makes the QRP Labs digital transceivers unique is that the transmitter doesn't use SSB with modulated tones; rather, it uses "single signal" transmission that directly transmits the required tones to be decoded on the other end of the QSO. This greatly improves performance with a much cleaner signal, no worries about over-driving or ALC issues, and much lower power consumption.

The QMX is offered both as a kit as well as fully assembled, with a surprisingly low cost of \$95 (unassembled, shipping from Turkey extra). An optional enclosure of black anodized extruded aluminum is available for about \$20 more.

Another great feature of QRP Labs products is the fact that being a true SDR, firmware updates can be released to add additional function to the transceiver. For example, at the time of this writing, the QMX is shipping with CW as the only mode available, until the firmware for the FSK modes is completed. At that time, the user may simply download and install the new firmware to enable the additional features.

Yet another cool feature of QRP Labs transceivers is the "built in test gear" - a signal generator and other test tools that are used during assembly to test and calibrate the finished unit. They can also be used down the road for diagnostics and troubleshooting should things go awry.

Interestingly, there are two versions of the QMX: one offering bands 80, 60, 40, 30, and 20 with another version offering 20, 17, 15, 12, and 10 so it's up to the user to decide which bands are most important for their application. Of course, you could always buy a pair of them and have ALL the bands spread over two units!

(Continued on page 76)

[Click to visit the Manufacturer's Site](#)

TNT THE NEW HOT THING

Hot and new products to think about



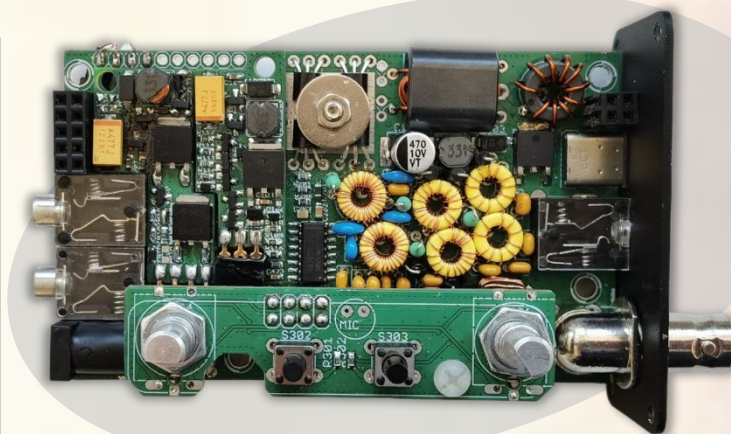
W7UUU

(Continued from page 75)

Here's is a list of features of the QMX Transceiver:

- Versions: 80, 60, 40, 30 and 20m --- or --- 20, 17, 15, 12, 11/10m
- CW and FSK Digi modes (No phase modes like PSK)
- **All features of QCX-mini** (VFO A/B/Split, RIT, Message and frequency memories, beacon, keyer, etc.)
- **4-5W output** at 9V supply (can be built for 4-5W at 12V supply)
- SWR bridge built in
- Single signal DIGI-mode transmission (zero unwanted sideband, zero residual carrier, zero intermodulation distortion)
- Solid-state band switching and transmit/receive switching under CAT control
- High performance embedded SDR SSB receiver with 60-70dB of unwanted sideband cancellation
- Built-in 24-bit 48ksps USB sound card
- Built-in USB Virtual COM Serial port for CAT control
- Si5351A Synthesized VFO with 25MHz TCXO as standard
- Easy to build single-board design, Professional quality 6-layer, through-hole plated, silk-screen printed PCBs
- All SMD components factory assembled (YAY!!)
- Connectors: 2.1mm power barrel connector, USB-C (for audio and CAT control), BNC RF input/output, 3.5mm jacks for audio out, paddle/GPS/mic/PTT in, and PTT out
- Built-in test signal generator and testing tools
- GPS interface for frequency calibration, real time clock and location (internal WSPR beacon)
- IQ output mode for use with SDR software
- Switched mode regulators Receive current 80mA, Transmit current 1.0-1.1A for 5W output with 9V supply (around 0.7A for 5W with 12V supply).

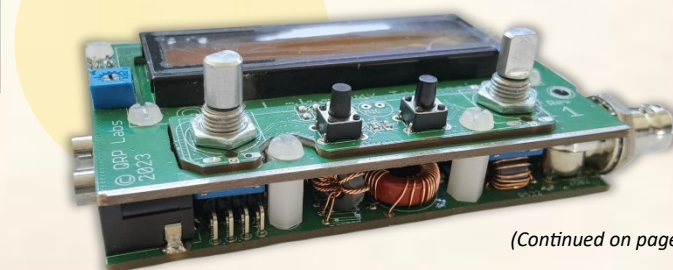
As has been mentioned, the QMX is offered at the



lower price point of \$95 (less case) as a kit. There is a \$50 upcharge for an assembled transceiver. That's a pretty significant difference in price—nearly 50%.

However I would caution that despite the kit's small size and seemingly simple operation, it is a fairly complex transceiver and *I would consider this to be an advanced kit*, suitable *only* for those with a pretty serious bit of kit-building experience behind them. You can review the full manual [AT THIS LINK](#). Before you consider ordering the kit, I *strongly* recommend reading through the manual *in detail* to see what you, as builder, would be up against. Only really experienced builders should consider taking this on.

All the many surface mount components are already



(Continued on page 77)

TNT THE NEW HOT THING

Hot and new products to think about



W7UUU

(Continued from page 76)

installed at the factory, so there is that. But all the many toroids must be wound, as well as a transformer. None of these steps is particularly difficult, but it is demanding work and requires dedicated focus. Add to this that the main board and the daughter boards are small and very cramped. The component density is at or near the top of the “build it yourself” scale in my opinion.

So in the end, if you’re just after putting a QMX on the air, you may wish to consider the “built and tested” version for \$50 more. And certainly if your own



kit building skills might perhaps not be up to snuff for a project of this complexity and form factor, you should definitely consider stepping up to prebuilt.

Upon completion and initial checks, the user must then install the firmware. The kit does not come with the transceiver programmed—there is only a “boot-loader” installed, that is programmed to look

for a suitable firmware file via the USB-C connection on the main board. It is system agnostic: Windows, Linux or Mac—all can supply the firmware.

For those who like to see schematics of such devices, QRP Labs has a long history of being fully open about publishing them... [CLICK HERE TO VIEW](#).

Of course, without the firmware and the proprietary boot loader, no one can copy the circuit and rip the company off.

So how does it perform? Thus far, the reviews are pretty impressive—putting it near the top of the eHam Reviews scoring at 4.3. Most of the negative remarks relate to difficulty of assembly, and niggling little issues in the firmware: pops and clicks when turning controls, and some oddness with other settings. Many of these issues may have by now been addressed in firmware updates.

In all, I consider this to be a very solid product. As an owner of numerous QRP Labs kits, I fully plan to add this one to my arsenal soon.—Dave W7UUU

Click below for a 10 minute overview of QMX

Hans GOUPL YouTube

<http://qrp-labs.com>

[CLICK HERE](#)



MOST HAMS WHEN they hear the name Mosley will immediately think of antennas, not ham gear such as a receiver. Mosley has been around as an antenna manufacturer since 1939, and is one of the best-known names for quality amateur radio antenna products. But around 1960, McDonnell Douglas engineer John Clemens, **W0DB** (formerly **W9ERN**) designed what he thought could be a viable amateur receiver which he dubbed the CM-1, standing for Clemens Manufacturing, Model 1. But not having the wherewithal to go into production, he approached Carl Mosley of the antenna company and pitched the idea. It didn't hurt that CM was also the initials for Carl Mosley, and he liked the idea enough to go forth to begin building it commercially. *Aston Martin*

The CM-1 receiver was first advertised in the April 1962 issue of Popular Electronics, with an introductory price of \$182.70 (\$1800 in today's inflated dollars). Billed as the "first low-priced receiver with double conversion and crystal-controlled first oscillator", it used only 5 tubes but each type 6AW8A which was a dual purpose tube. It served the functions of a similar receiver using up to 12 tubes. This made for a much more compact footprint than most receivers of the day.

Coverage was fairly conventional, from 80 through 10 meters. On 80 meters the CM-1 is a

single conversion superhet design, achieving double conversion on 20, 40, 15 and 10 as well as WWV tuning at 15 MHz. It had an S-Meter, BFO, and product detector for the newly popular SSB mode of operation. Ham Radio editor of Popular Electronics, Herbert Brier, **W9EGO**(SK) gave it a favorable review. Sensitivity and stability were considered very good, with performance

noted to be as good as the hugely-popular Drake 2A and 2B receivers of the same era. However, the CM-1 lacked any sort of selectivity circuitry. So on CW, it sorely lagged behind the passive IF L/C filtering of the 2B or the narrow CW crystal and mechanical filters common in receivers of the day. This was just one factor that resulted in

sluggish sales. At the time, receivers considered to be "high performance" were big and heavy. Small light rigs like the CM-1 perhaps created an aura of low-performance. Coupled with only having 5 tubes (despite them all being 6AW8A dual tubes (triode and pentode) that's highly likely to have been a contributor to the slow sales. The CM-1 was also not initially widely advertised in the ham magazines of the day so exposure was not as high as with other brands. Regardless of its benefits, only about 1000 were ever sold, making it a pretty rare receiver to find today. ■ -editor

Photo © Bill Harris

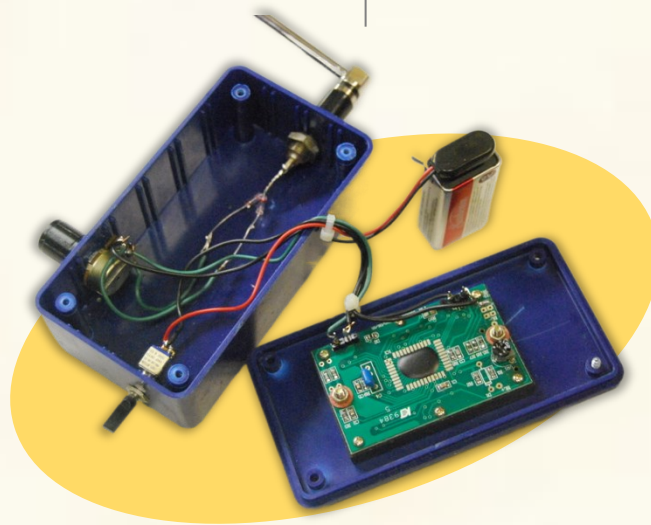


HOMEBREW & KITS CORNER

Radio homebrew projects both large & small

EVERY HAM SHACK should have a field strength meter on hand to measure antenna radiation from time to time. It's really handy when using a tuner with a wire antenna to make sure the settings with the lowest SWR actually put out the most RF. For me, I just wanted to see what relative strengths at various bands my new beam antenna was putting out in different parts of the shack and yard. It's really easy to build an effective and usable FS meter using really basic parts: a couple of 1N34 germanium diodes (don't use silicon if you can avoid it—performance will be much better with germanium), a 10k Ohm linear potentiometer, a 9v battery and clip to attach it, and a small digital voltmeter like the one featured in this article. Velleman sells lots of fun electronics hobbyist bits on Amazon and other sites, and the [PMLCD LCD panel meter](#) at \$12.95 makes a great

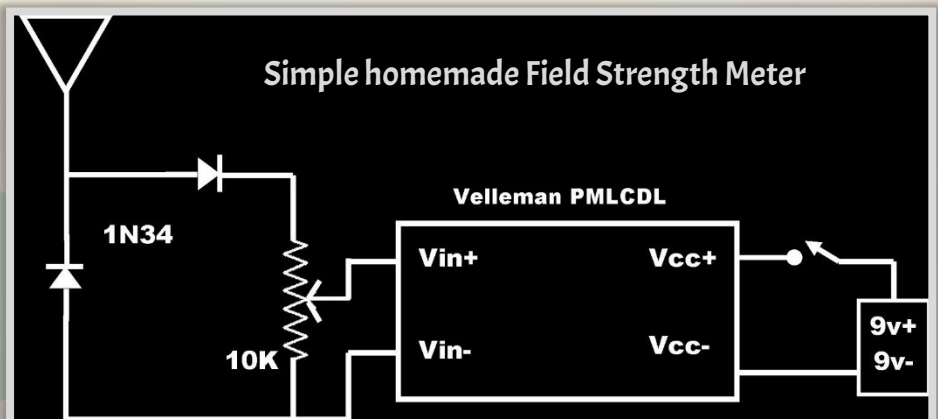
choice for this project. Of course, there are many variants all over the web from eBay to Alibaba but I just went with the Velleman. The schematic below couldn't be simpler.



I installed the whole circuit in a surplus Radio Shack plastic case from my junk box, and the antenna was some random mini-telescoping unit from some other junked gizmo. But you can source those on Amazon or eBay if you don't have one on hand. Even a short piece of stiff wire will work! Wire it up

per the simple schematic, pop in a 9v battery, and you're good to go! You don't care what the actual numbers represent when reading transmitter signals—it's all a relative thing. You're just wanting to find out "am I radiating" for one, and "if so, in which directions?". In my case I used a 6' step ladder and set the unit on the top in various locations to determine relative field intensities. ■ -Dave W7UUU

Simple homemade Field Strength Meter



email loggersbark@gmail.com



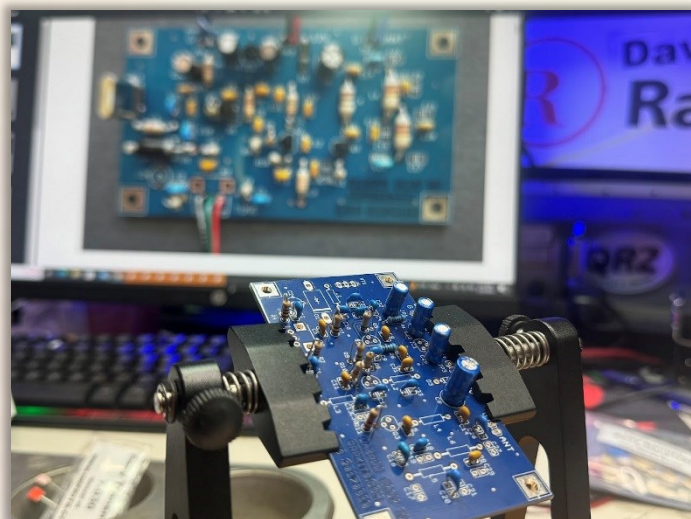
HOMEBREW & KITS CORNER

Radio homebrew projects both large & small

LAST MONTH I PRESENTED in this space a 5-piece set of small QRP kits from, well, QRPKits.com. The lot included the Easy Transmitter, the Easy Receiver, a TR switch, a keyer, and an audio filter for CW selectivity for the receiver.

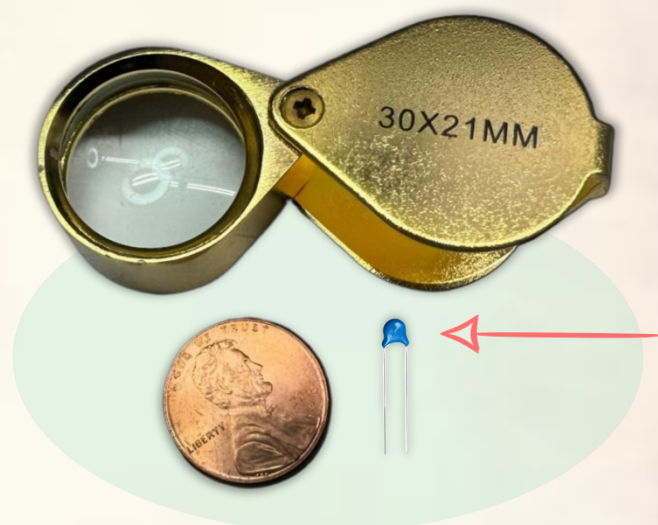
In this article I will talk about the build and operation of the [Easy Transmitter](#) which I've now completed and have used on the air for actual QSOs.

The transmitter is rated at 2 watts RF output on 40 meters (mine puts out 2.2 watts). There is a V XO (variable crystal oscillator) function via a potentiometer for very smooth stable tweaking of the crystal frequency by about 1 KHz. There is a well-designed bandpass stage to keep the output well within FCC tolerance for spurious out-of-band emissions. Lastly, from a builders perspective, there are no toroids to wind—all of the inductors are molded types, with axial leads. While in some circuits, molded RF coils would be inferior to toroids, in the case of the Easy Transmitter, the difference is negligible and the gain in building ease more than makes up for it.



Construction was very straightforward, with a nicely written assembly manual (no actual “step-by-step” instructions like a Heathkit but really not needed. Simply go down the list of parts and install by component type).

But be prepared to use a *strong* magnifier to read the values of the assorted disc capacitors. They are TINY! See actual photo below of one of them—the tiny blue object. I used a 30x loupe to read them, then confirmed with my trusty [Peak Atlas LCR45 meter](#) to make sure I read the number correctly.



Outside of that small issue, assembly was a breeze. They quote “1 to 2 hours” in the manual... I'd say that would make sense if you already knew every single part and where it goes! But for the rest of us, I divided assembly over three 1-hour sessions, using a monitor on my bench to see from the manual “nice and bigly” where the parts go as I checked them off the list. Very helpful to have a PCB clamp vise for doing this sort of work, but not necessary.

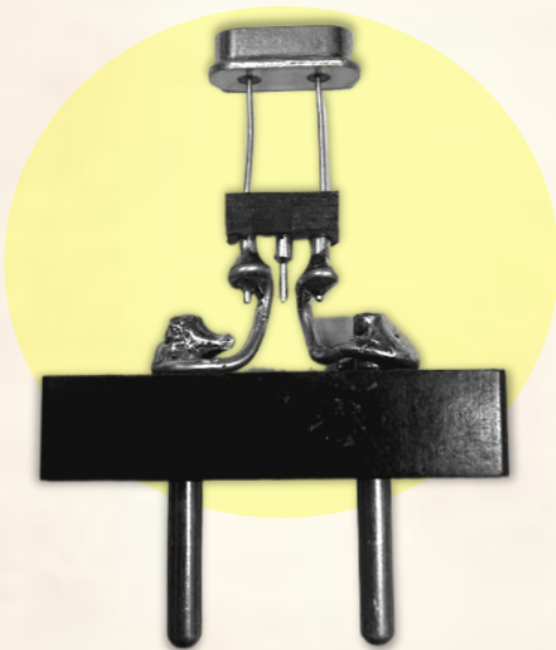
HOMEBREW & KITS CORNER

Radio homebrew projects both large & small



The kit as supplied calls for the use of tiny “QRP crystals” (you can order the kit with either 7.040 or 7.030... I chose 7.030 since .040 has been taken over by the digital mode WSPR and is no longer the QRP “calling frequency” like it once was).

I have a small tin of such crystals, covering much of the 40-meter band, so I wanted a way to easily change them. The kit PCB just has a small “SIP Header” as a crystal socket but I plan to mount the transmitter in a small box. So I needed a crystal socket that could be remotely mounted. I had a standard FT-243 (Olde Tyme style) crystal socket on hand, and made a simple SIP header socket adapter for it—that way I can use old FT-243 crystals or the tiny QRP-style that are cheap and commonly available these days.



My “Itty bitty” QRP crystal to
FT-243 crystal socket adapter

I was concerned about the extended socket wire length, but it works great and is totally stable. So should be an easy mount into a box.



On air operation is excellent! My very first CQ resulted in a nice 579 both ways chat with Dennis, **KN6QER** in Pacifica, California. Great note as received in my 75A-4 and used with my MFJ-1708 TR switch. Be watching for *more* updates on this project. ■ -editor



ADAM'S TECH TALK

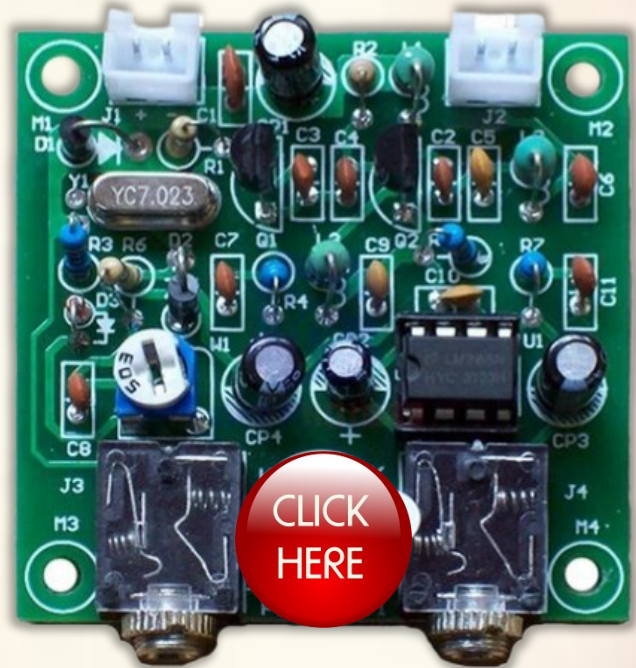
Adam Barbera W2NCC

EMBARKING ON THE JOURNEY of Kit Building

The process of electronic kit building is not just a technical effort, but also a deeply gratifying experience. The sense of accomplishment that comes from successfully assembling a kit is wonderful. It's like solving a complex puzzle, and when the final piece is in place, you experience a feeling of achievement that is very satisfying. This sense of accomplishment is amplified by knowing you have created something that is not only tangible, but serves a useful purpose.



One of the simplest kits out there—an End Fed Halfwave antenna 49:1 balun with BNC antenna connector and winder for the wire used for the radiating portion. This is a great place to start your kitting journey and end up with something useful as a result—a POTA antenna! ■ -editor



Another popular kit is one of the many variations of the Pixie Transceiver—2 watts of CW, with simple receiver. Easy to build and cheap—usually well under \$20 ■ -editor

It's one thing to understand electronic principles theoretically, but applying that knowledge in practice provides a deeper level of understanding. What's even cooler is that you've made something that actually works. You might have learned about how electronics works in school, but building a kit lets you see it in action.

The process of building kits is a great way to build hands-on experience with tools such as soldering irons, multimeters, and other test equipment. It provides a platform to learn electronic and RF circuits. Building a project is not only enjoyable and educational but also rewarding as it results in a physical product.

Electronic kits are circuits that have been completely pre-engineered for you, and include all the components nec-

ADAM'S TECH TALK

Adam Barbera W2NCC



Moving up the complexity ladder, we come to another fun and useful kit: the K1EL PaddleStick CW Keyer kit—touch-sensitive paddle with full-function keyer ■ -editor

essary for their construction. They typically come with detailed assembly instructions and most often require soldering of components onto a printed circuit board.

They can be designed for beginners, offering a practical learning experience in electronics, or they can be more advanced, requiring electronic knowledge and testing equipment for successful completion. Some seemingly simple kits [like the QRP Kits QMX described elsewhere in this issue of The Bark —ed] are actually very advanced and should only be attempted by experienced builders.

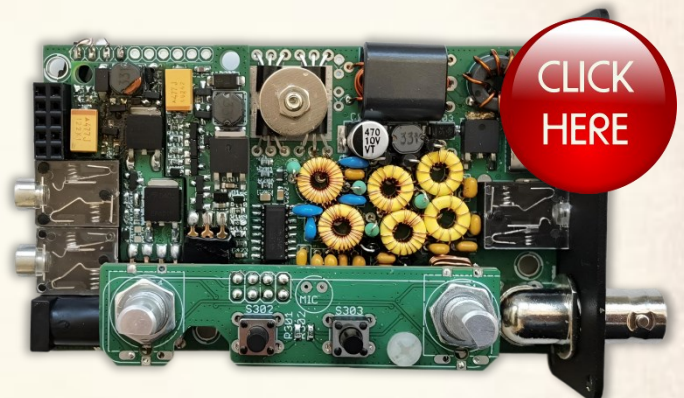
For a beginner, it's important to choose a kit that fits *your* skill level and interests. Start with simpler, straightforward kits that focus on fundamental electronic components, circuits, and building techniques required. Many electronic kits available directly from overseas suppliers don't have step-by-step instructions. Look for kits that include clear instructions, diagrams, and supplemental materials. So read the manufacturer's website closely to determine if the kit is right for you and for your skill level. Download and read the manual *before* ordering—does it make sense to

you? Or does it seem over your head?

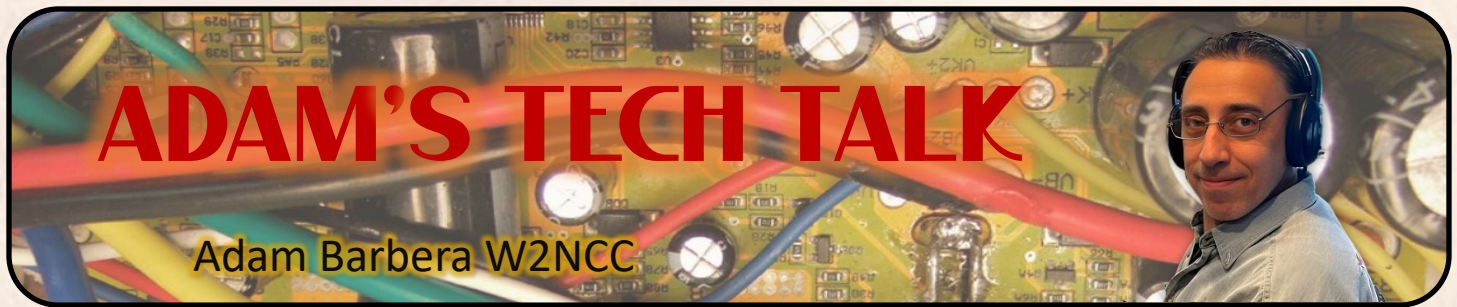
Prior to building your first kit, ensure you have the necessary tools and equipment. Fundamental items such as a basic soldering iron, rosin-core solder, small wire cutters, and a multimeter are vital for the assembly of most modern electronic kits. Also, a well-lit workspace is very important for ensuring safety and precision during the soldering process. Also very handy: a magnifying glass or glasses for reading values on small parts.

When starting on a kit project, *always* review the parts list and verify the inclusion of *all* components before starting. A good habit to develop is sorting the parts into types: disc capacitors, electrolytics, resistors, molded inductors, etc. This practice helps in familiarizing yourself with the components and aids the building process.

Before building any electronic kit, read the entire assembly manual step by step, without actually building. Once you commence building, follow the instructions provided with the kit *carefully*. The design may require the installation of components in a specific order, which may *not be intuitive* when examining the PC board and parts.



This is the QRP Laps QMX 5-watt 5-band CW & Digital transceiver kit... but this is for truly experienced builders due to the complexity. This kit is reviewed elsewhere in this Bark issue ■ -editor



Adam Barbera W2NCC

Start by identifying each component and its location on the circuit board. Exercise patience while soldering to ensure accurate connections and prevent components from overheating. Regularly review your work as you progress through the assembly process. Remember, these projects are meant to be enjoyable, so take your time. Don't go by the assembly time often quoted for the kit—they are seldom accurate and certainly don't take into account different skill levels.

Once the kit is built, double check all of your work. Look for points not soldered, parts not fully inserted, things like backwards diodes or transistors. Go through all the steps of building one by one, and confirm you completed every step exactly as described.

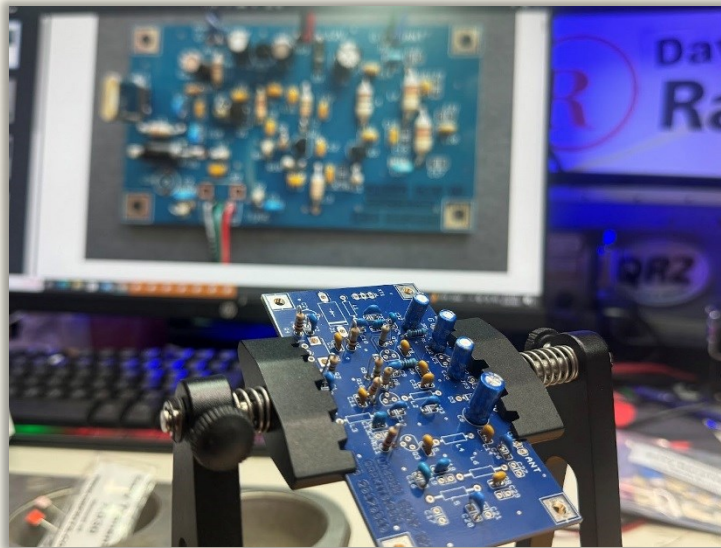
Now it's time for testing and initial checkout, which most assembly manuals will cover. It can be beneficial to use a multimeter to verify continuity, test voltage levels, and visually inspect the circuit to detect any potential mistakes. But always refer to the manual for next steps on working through final assembly and testing. Most kits will provide these steps in the instructions.

If the kit does not function as anticipated, refer back to the instructions for troubleshooting advice. Most kit manufacturers will have an email address or even a phone number to contact them for assistance. As a final resort, you can get assistance from online forums from other builders.

As you accumulate more experience with electronic kits, consider different types of kits to broaden your knowledge and skills, and to fill other needs in your shack for gizmos you're lacking. Often, more complex and advanced kits will have online support groups. As a learning aid and assistance, get involved with online forums, social media groups, or spaces dedicated to electronics hobbyists. These communities can offer valuable insights, tips, and support as you advance in your electronic journey. Most of the online forums welcome new mem-

bers and are willing to help answer questions. So, share your projects, pose questions, and learn from seasoned builders.

The knowledge gained through kit building is practical. And the process is fun! It's been my experience that a hands-on learning environment can provide a solid understanding of electronics, making it easier to grasp the concepts in how a given device works.



Ham radio kit building can be a blast! In this photo W7UUU nears completion of a 2-watt CW transmitter kit—this is featured elsewhere in this issue of the Logger's Bark ■ -editor

Whether you're a beginner or an experienced builder, the world of electronic kit building offers endless opportunities for learning, growth, and enjoyment. A quick web search will yield hundreds of kits available from sources all around the world as well as right here at home. Find a kit that is of interest that you think matches your skill level, then start learning and have some fun!

Until next month, this is **Adam W2NCC**

ANTENNA TIME

Notes, tips and projects



FOR THIS MONTH'S Antenna Time feature, I thought I would tell the story of the very antenna used in the page header for the Antenna Time column. The red and white one. That was a real antenna, and it has quite an amazing story, and a tragic ending.

Far north of Helsinki, Finland near the Russian border in a frozen wilderness is located the massive **OH8X Radio Arcala contest station**. This is one of the most massive amateur radio contesting stations in the world, sporting many towers loaded with dozens of antennas.... in one of the most inhospitable regions on earth—just shy of Finland's

Arctic circle. In an effort to gain as much traction as possible in the contesting arena, Radio Arcala in 2007 began plans for what would become the largest ham radio antenna ever built: a 3-element 160m Yagi with 12.9 dB of forward gain, and topped with a 5 element full-size 80m Yagi with 15.7 dB of gain! The three capacity-hat elements on the 160m were each 193 feet long on a 215 foot boom. The 5-element 80m Yagi on the top of the 330 foot tower had a boom length of 200 feet, with each of the 5 full-size elements at roughly 147 feet long. All of the steel triangular sections used to build the antennas were custom-made, and the boom for the 160m antenna was just over 7 feet in section, with a rail installed to allow full walk-

ing access to the entire length of the boom! Access to the antennas was via a vast array of stairs that zig-zagged up the tower. Total weight of the tower and beams was over 80,000 pounds or 40 tons. Rotation of the entire tower was accomplished using a 7000 watt custom-built rotator and gearbox at the base of the tower. Four guy wires provide lateral support, each extending nearly 1500 feet to massive concrete

anchors on the forest floor. The 160m Yagi was fitted with a relay and loading system to allow the antenna to be flipped 180 degrees by a switch in the control console, not unlike a modern SteppIR antenna.

That would allow the operator to instantly "point the antenna the opposite direction" without having to wait the 3 minutes time it took to fully rotate the tower.

Owing to the extremes of weather at the 45 acre site, there were multiple provisions for dealing with ice, which is a condition that folks in this region are well familiar. And of course, wind loading of such a monstrosity is extreme. So a system was devised to automatically rotate the tower to position the eight elements across the two antennas pointing into the wind to help reduce drag and loading. All of this was of course engineered in extreme detail by the **OH8X** design team.



Photos ©Radio Arcala

ANTENNA TIME

Notes, tips and projects



This massive antenna system went online in 2009 after two years of design and construction. Despite many searches I have never found a total cost to build, but most certainly the entire project must have run well over a million US dollars.

So how well did it work? Surprisingly, not very well at all. And the reason isn't all that obvious at first. One might guess polarization: the OH8X Yagi was horizontally polarized whereas most amateurs can only muster vertically

mounted antennas on the band. However, over the distances involved with 160-meter propagation, polarization isn't a significant consideration. The real culprit for the lower-than-expected performance was in fact all that gain! It seems counterintuitive, but consider this: at the Radio Arcala site, the ambient noise level most nights would be S1, sometimes up to S2. But the noise level for all but the most amazing 160m stations in the world tends more towards S5 to S9. That means that at Radio Arcala, if they hear a station in England or Germany running 100 watts coming in right at S1, but the station in England is dealing with S6 noise, that's 30 dB difference that needs to be overcome. Since Radio

Arcala runs a strictly-observed 1500 watts, that's not even close to making it above S6 "on the other end".

Megawatts would be required, even with 12 dB of forward gain.

So in reality, OH8X found that they were more or less in the same boat as everyone else, only able to work stations that were S7 or better most nights.

But all ended up being for naught when on a night in early December 2013, a massive storm blew in with freez-

ing rain being driven at 78 MPH overwhelmed the ice control and auto-storm-rotation functions of the massive array, and it came tumbling down 330 feet to the

forest floor. Thankfully, the tower was set well away from any other towers or structures so no additional damage occurred.

Will Radio Arcala ever rebuild this masterpiece of ham radio antenna design? Not likely. While the performance of the 80m 5-element Yagi was much

better than the 160, the lackluster results wouldn't justify the cost to rebuild.

So life still goes on at Radio Arcala in the ensuing years and on into the future. There likely will never be a project like this again. ■ -editor



7000 watt rotator motor and gear box to turn the tower



Radio Arcala base jump

Watch this amazing video of jumping off! Turn it up!



HAIR CARE PRODUCT for your ham radio accessories or other plastic items that need to be spiffed up

I recently acquired an old microphone, suspected to be a Heathkit GH-12, used with Heathkit CBs and ham transceivers from 1960 to 1969 or so. Over the years, the mic developed brownish stains that looks like nicotine, but isn't. White colored plastic from that era is known to take on a yellow brownish tint as it ages.



Original Heathkit GH-12
(Shure 350C rebranded)

[kit HW-22](#) that was recently acquired. I began wondering if the brownish tint could be eradicated.



Mic before cleaning



Mic after cleaning

This mic mates with a [Heath-](#)



Seemingly mind-reading YouTube indeed provided a possible how-to solution.

The Suggested method is to paint the browned plastic piece with [Salon Care 30 Creme](#) - a Peroxide based hair-lightener. Then seal it in a Ziplock bag and place it outside in direct sunlight.

After 4 hours the brownish stains will be bleached away. I did this

and achieved success but only on the microphone parts that faced the sun. On the next sunny day, the same method was carried out, but with the non whitened parts facing the sun. More Success. My small bottle of [Salon Care 30 came from Amazon](#) and cost about \$7.00.

-Submitted by Ricky [KR7W](#)



"This kind of hard-to-watch video was my inspiration... but it wasn't so hard to watch when I was in need of a solution!"



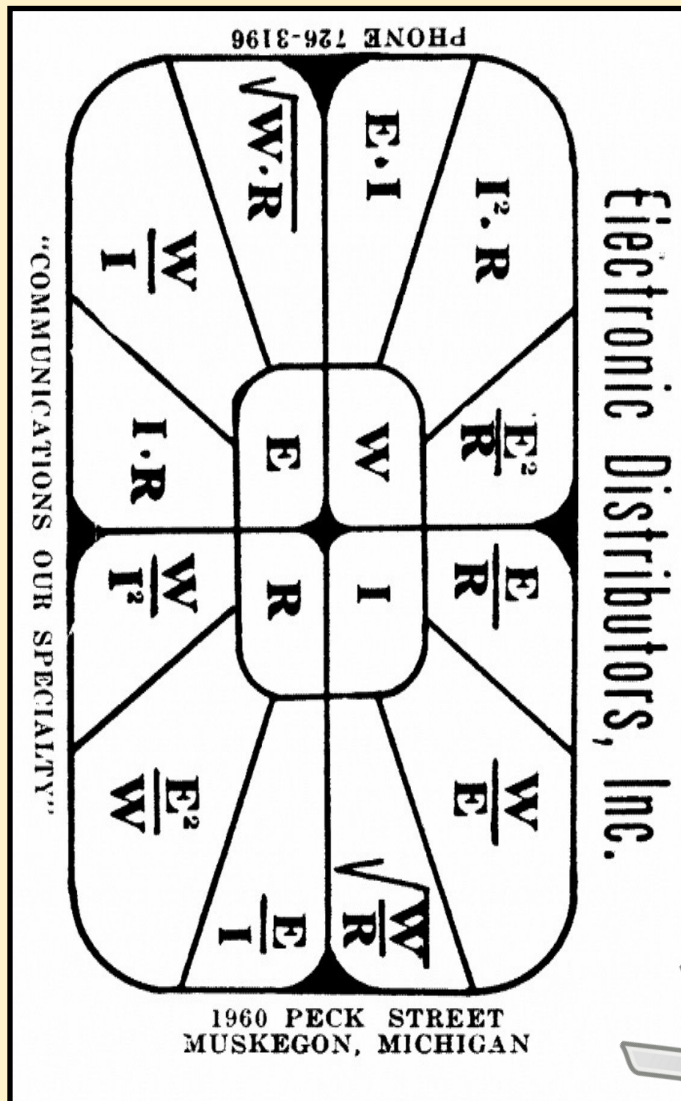


AROUND THE SHACK & SHOP

Little tips for when you get a round TUIT!

Every ham service shop needs this!

OK SURE I KNOW that simple algebra can be used to derive all the variations of Ohms Law— $E=IR$ but even in this modern age of computers and internet, it's nice to have a simple old-fashioned cheat sheet to show you all the possible variations of the basic law, for solving for any unknown variable you need. Just use the basic calculator in your phone for the math. This one was a freebie from an electronics jobber in Michigan from 1960. Just print this page, cut it out, and pin it up in your shop! No more need to remember your algebra! ■ -editor



Upcoming Ham Fests in the area

May 4th. Star Ham Radio Swapmeet in Star, Idaho. <https://www.starhamradio.com/>

May 4th. Spout Springs Repeater Association Swapmeet. 9 AM at Confluent, 285 Williams Blvd, Richland, WA 99354. [Flyer in PDF](#). Contact Alex Archer at events@SSRA.net

May 11. Stanwood Camano ARC 31st Annual Electronic Flea Market and Hamfest. Stanwood, WA. *This is an ARRL Sanctioned Event.* https://scarcwa.org/ham_fest.shtml

May 11. SWIARC Spring 2024 Spring HamFest, Peace Valley Charter School, 1845 S. Federal Way, Boise, ID 83701 *This is an ARRL Sanctioned Event.* <http://www.dosomethingradio.com>

May 31, June 1-2, 2024. SEA-PAC Hamfest and ARRL Northwestern Division Convention. *This is an ARRL Sanctioned Event.* Seaside Convention Center, Seaside, Oregon. info@seapac.org . www.seapac.org/ . [February issue of Sea-Pac Waves.](#)

June. TBD Port Ludlow ARC Tail Gate Swapmeet. <https://www.n7pl.org/swapmeet23.html>

June 7, 8, & 9. Wenatchee Apple City ARC Hamfest, Dryden, WA. *This is an ARRL Sanctioned Event.* <https://www.applecityarc.com/> [Flyer in PDF](#). (290 K) Map

June 8. Inland Empire VHF Radio Amateurs Swap meet. Plante's Ferry Sports Complex, 12320 Up river Drive, Spokane, WA. Back Parking Lot. [Flyer in PDF](#) (1.3 MB)

Listings courtesy: Lynn Burlingame www.N7CFO.com

Got a cool shop tip? Send it in!

HAM TECH 101

Useful tech info for newer hams and old

A DISCUSSION OF RADIO BRANDS *for beginners*

This column is reprinted with permission of **AF5NP** from his blog www.NEWHAMS.info
References to FCC question numbers may be out of date but the content will still be accurate

By Jim Peisker, **AF5NP**

Any ham new or old has many choices for radios and radio gear available. We don't want to tell radio amateurs what to buy or not to buy but will try to give some guidance here.

The modern natural progression for new hams today is to start with a handheld VHF/UHF transceiver, then move on to a mobile VHF /UHF unit, then a full-on desktop HF rig. These all have different characteristics which must be considered. So the first question is what type of radio are we buying?

Beyond the basic type there are several factors in selecting a radio brand. It usually comes down to the buyer's top three or four priorities from this list of characteristics:

- Overall Functionality for your needs
- Features
- Performance
- Quality
- Reliability
- Durability
- Ease of use/programmability

- Memory capacity
- Familiarity
- Style/Appearance
- Portability
- Price

Unless you are looking for a specialty radio (i.e., low-power portable CW operation), size isn't much of a factor these days as within a general family all radios have similar weights and dimensions.

YAESU

From this list the top consideration should be functionality (what it does, exactly) as that is most relevant. Say you want a dual-band FM HT to work the local repeaters or for EmComm deployment. You have more than a dozen choices available.

Refining further by features for things like APRS, power levels, battery type, weather resistance, and other features will narrow your selection, but you still have many to choose from. At this point

ICOM

HAM TECH 101

Useful tech info for newer hams and old

you're likely to think about price and here is where things get fuzzy. You could choose the nice name brand \$350 HT but there's actually several that do mostly the same things for under around \$50!

Sounds like a slam dunk decision to go with the cheaper one, but you should carefully consider this. Beyond functionality and features, other important characteristics may suffer. With that low price you often get questionable performance, low quality, poor reliability, and lack of durability, not to mention fewer features. As the saying goes, you get what you pay for.

KENWOOD

Now that doesn't mean you should never buy a cheap radio, but you should really give it careful thought before you do.

Some HTs are so inexpensive they can be considered disposable. If you lose or break one, you're out only \$30-50. This may be a good candidate for backup or one you might take boating or on a camping trip or loan to a prospective ham to listen on. You can find favorable reviews on some of these cheap radios (mainly HTs and mobile rigs).

But you will also find many negative reviews on the same radios, mainly for reliability and durability. Some of the really cheap Chinese radios also have poor RF characteristics, possibly lack FCC certification, and may not be strictly legal for use in the USA.

ELECRAFT

So it's a crap shoot if you do want to buy a cheap radio. Make sure above all you only purchase a radio that is clearly marked as having FCC acceptance.

There are three well-known name brands that have reputations for high quality and reliability: Icom, Kenwood, and Yaesu for hand-held, mobile and desktop radio equipment. ALL of these will cost considerably more but will give many years of service and are worth repairing should one fail or be broken. All of these brands originate in Japan but have strong factory service presence in the USA and other countries.

American companies Elecraft and FlexRadio make some pretty awesome HF rigs but they do not try to compete in the hand-held (HT) or mobile radio segments. They only produce large desktop rigs that are considered extreme performers.

Pre-owned equipment will be less expensive than new, of course, but the price between used reputable brands vs. un reputable will be proportional. With used radios you also can find older HF brands with excellent reputations.

The author's own sad experience with an off-brand mobile radio has led him to this topic and a determination to never again buy a low-end cheap transceiver. He purchased a well-known low-end cross-band mobile rig that worked for several months.

But after that, people could no longer hear him when he was talking into the mic. The watt meter reported a full 50W output and the repeater was

HAM TECH 101

Useful tech info for newer hams and old

keying reliably. Supposing it to be a microphone failure, he replaced the mic but the problem persisted.

Evidently something failed in the modulation circuitry so that it barely deviates (how FM works); if he screams into the mic a little sound comes through the radio. The factory in China would repair it but they require a very specific shipping method that costs almost what the radio is worth. No repair facilities for this brand outside of China and no schematics available for troubleshooting; it's now a paperweight. That's the moral of this story: you truly get what you pay for just as in so many other aspects of life.



This author's recommendation is to buy one of the Big 3 (the brands mentioned earlier in this article), or at the bare minimum, thoroughly check reviews specific to the model you're considering before buying low-cost radios. If you go off-brand or low-end, make sure that domestic repair is available.

Generally speaking, most of the really low-end radios from the big Chinese manufacturers such as Baofeng, Wouxun, Tytera, and many others simply are considered to be throw-away radios for all but the simplest of problems.

Do your own research on radio brands before jumping in. There are many resources on the web, including the radios review section at eHam.net—one of the most comprehensive collections of reviews out there (albeit not without its detractors and occasional oddball review).

You can also post on QRZ.com in the Amateur Radio Equipment Reviews sub-forum and usually get helpful input on radio models that you might be considering. Nowhere near as elaborate as the eHam reviews, but it's a discussion forum so you can get good input from other users.

73, Jim Peisker, AF5NP

(with additional input from Dave W7UUU)



For some new hams, a Ham Fest may seem the ideal place to find a new HF radio at a great price. And that surely can be the case! But buying here is fraught with two significant risks: cash deal only to a stranger and no way to test before buying. Unless you can bring an expert ham with you, this is not recommended for new hams. ■ -editor

GEAR

Guest Columnist: Dave Jensen W7DGJ



IF YOU ARE LIKE ME, when you are shopping you are always on the lookout for something that might improve your shack. Recently, I was in my local Home Depot store looking for a 220v cable for a new linear amplifier I was testing. I found what I needed, and on the way out I spotted these great bulletproof bags made by the tool company Husky. This item is called a Document Bag, and Home Depot (and probably Lowes as well) sells a couple of different sizes. The package I bought gives you a set of four (8" x 12") and I was impressed with their construction. They are super heavy duty and water "resistant," and cost less than \$15. I am amazed at all that I can fit into them. They're easy to customize with your call sign in the spot for this on the outside flap, and you'll have an extra bag or two to pass along to your ham buddies if you don't need all four. The same

company makes a smaller set of these bags (great for connectors and short cables) but for me this one is the perfect for my 2-meter J-pole antenna, or a 20-meter dipole and short coax. It's just big enough to hold an HT plus accessories but not so big as to be cumbersome. I would highly recommend them.



About six months ago I watched a YouTuber show off his POTA table, a portable device he got from Amazon. I bought one, but only rate it a C+ versus his A rating. This table ([Amazon LINK](#)) measures 37" by 23" and has two heights, either 21" or 29" high. The major reason I didn't get as much pleasure out of it as my YouTube friend is that it is not all that adjustable to wild terrain; the legs are not infinitely adjustable. You can have the legs placed in one of two positions, so it must stand on a flat surface. In my backyard, POTA is done in rocky terrain and desert parks where the ground is anything but flat. If



Husky document bags from Home Depot

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you're regularly out in the grass somewhere at an urban park, you'd be fine with one of these and they are darn convenient.

I would rate the build quality of this table to be a C and the usability factor to be a B. It's a pleasure to have a flat surface this large for your radio and laptop, and then to be able to dissemble it easily and pack it into a small package to carry back to the car – it weighs about 12lbs and takes two minutes to put together or take apart. The cost varies by time of year and coupon used, but always in the range of \$55 to \$65. 73 for now, Dave **W7DJG**



Folding table stowed away in carry bag

ABOUT THE AUTHOR



Dave Jensen, W7DGJ, was first licensed in 1966. Originally **WN7VDY** (and later **WA7VDY**), Dave operated on 40 and 80 meter CW with a shack that consisted primarily of Heathkit equipment. Dave

loved radio so much he went off to college to study broadcasting and came out with a BS in Communications from Ohio University (Athens, OH). He worked his way through a number of audio electronics companies after graduation, including the professional microphone business for Audio-Technica. He was later licensed as **W7DGJ** out of Scottsdale, Arizona, where he ran an executive recruitment practice (CareerTrax Inc.) for several decades. Jensen has published articles in magazines dealing with science and engineering. His column "Tooling Up" ran for 20 years in the website of the leading science journal, *SCIENCE*, and his column called **Trials and Errors: Ham Life with an Amateur** continues to be a popular read each month on QRZ.com

Read Dave's column at:

<https://www.qrz.com/trials-and-errors>

QRZ NEWS YOU CAN USE

QRZ.com Updates from Dave W7UUU

Head Moderator & Director of Forums for QRZ.com



THINGS YOU PROBABLY don't know about the QRZ Logbook

Most regular users of QRZ.com are probably aware of the powerful [QRZ Logbook and awards system](#). Developed over the course of a couple of years, the Logbook went live in the summer of 2010 and now is one of the most popular features of the site. There are currently more than a *third of a million logbooks on QRZ*, totaling close to ONE BILLION QSOs! Every single day, 237,400 QSOs are uploaded to QRZ Logbook, and to date, over half a million operating awards have been issued!

But here are a few things you probably don't know about the QRZ Logbook (from an article by Fred Lloyd, AA7BQ, founder of QRZ):

Operating Awards are Given to People, Not Call Signs

Although you may have had several call signs, operating awards are based on your accomplishments as a person. This means that if you have had multiple call signs and as a result, you have multiple logbooks, when it comes to qualifying for awards, QRZ will tabulate from **all** your logbooks to determine eligibility. You can also limit awards to particular logbooks if you prefer.

A Confirmation Request on QRZ is Nothing More than a Reminder

Many people seem to think that something is supposed to happen when they make a confirmation request. When the button is pressed, QRZ notifies the other party that you are waiting for their confirmation. That's it. The rest is up to the other party. Confirmation is much more than a yes or no reply. Confirmation means that the other party has LOGGED THE QSO IN THEIR LOGBOOK. Until they actually do this, confirmation is impos-

sible. A confirmed QSO is one in which BOTH participants have logged the same QSO. You're out of luck if the other guy won't log it.

Your Logbook has its own QTH!

Every time you log a QSO, there are a lot of details that get saved automatically. These details include your *current* location and any other default data it knows about you. The data items are many and include your County, your DXCC, your Lat/Long, your CQ Zone, and many others. Together, these items are referred to as your LOG QTH, or in other words, your actual location at the time of the QSO.

Setting these items is easy. Go to the Logbook, click **Settings**, and then find the **Logbook Properties** button near the top right. The values that you set in Logbook Properties are the ones that will be used whenever a NEW QSO is logged. NOTE: *Although we set this up for you when you first create your logbook, we never update the information.* That's up to you to keep current based on your operation.

Logbooks have Start and End dates

This is an important concept that is made necessary by the fact that over time, a given call sign may be held by multiple individuals. Therefore, if a logbook is made for XX1XXX the start and end dates must be explicitly specified. Generally speaking, the Start Date should be your license issuance date. The end date should be set to some point in the distant future. Setting the end date to your license expiration date isn't a bad idea.

Having date ranges on logbooks is necessary to differentiate between two users of the same call sign during different periods of time.

QRZ NEWS YOU CAN USE

QRZ.com Updates from Dave W7UUU

Head Moderator & Director of Forums for QRZ.com



Anybody Can Create a Logbook for Any Call Sign

Although we don't recommend that you create logbooks for other people, the feature is useful to understand. For this example, let's consider a 1X1 special event call sign, W1A. Special event calls are issued for 2 week periods, so over time, there will be many users of W1A. Each group will want to maintain a Log and are not interested in any logs covering the period *before* their stewardship.

If someone wants to create a logbook for W1A, it can be done. To create the Logbook, you will need to specify a **unique** date range *that does not overlap* with any other W1A logbook. This is true for all logbooks. Date ranges may never overlap, and the system strictly enforces this policy.

QRZ Does Not Back Up Individual Logbooks

Did you accidentally delete your whole log? That's a bummer, but at least you have your downloaded backup, right? Or do you keep a copy on LoTW? Don't ask the Support team to restore your deleted log because it isn't possible. Granted that Logbook Download is a subscriber-only function, but anybody who has used it to recover a crash will attest to its value.

The logbook as a whole is backed up daily. This system-level backup can only be used to recover from a major disaster because it takes the entire system down for hours, possibly days. Fortunately, we have not had to use it.

That's it for now—see you all next month

-Dave W7UUU

QRZ Logbook Statistics as of 4/15/2024:

QRZ Logbook has been live for 3738 days

Total QSOs: **887,748,595**

Total Confirmed QSOs: **395,839,496**

Total Logbooks: **371,248**

Total Logbook Users: **299,751**

Total Awards Issued: **504,501**

Average QSOs per day: **237,492**

Average Confirmations per day: **105,896**

Confirmation Rate: **44.59%**


[Click Image to Learn More](#)

by Callsign

W7UUU Logbook

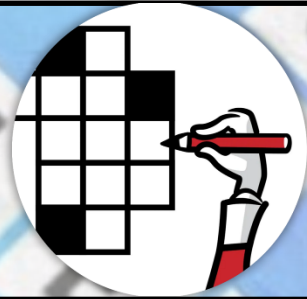
Enter Call...
QSOs: **21355** Confirmed: **15124** Countries: **231**
Counts could be delayed - force refresh

Filter: All QSOs

P	Date	Time	Rx Call	Tx B...	Tx Fre...	Rx Mode	Rx Grid	Rx Country
1	2024-03-29	01:45	N6HBJ	(40m)		PH	CN70xm	United States
2	2024-03-08	23:39	WA7E	(10m)		PH	CN87pi	United States
3	2024-02-27	01:10	5H4AYL	(20m)	14.090	FT8	KI73pm	Tanzania
4	2024-02-26	23:47	T88GF	(15m)	21.096	FT8	PJ77fi	Palau
5	2024-02-26	23:26	H40WA	(15m)	21.092	FT8	RH39dq	Timor-Leste
6	2024-02-19	23:47	AA4U	(20m)	14.082	FT4	EM64rv	United States
7	2024-02-19	23:44	K6IRK	(20m)	14.076	FT8	CH98hq	United States
8	2024-02-18	23:17	V3O	(20m)		CW	ER57nf	Belize
9	2024-02-18	23:12	TA7I	(20m)		CW	KN91ua	Turkey
10	2024-02-18	23:05	EF6T	(20m)		CW	JH08pw	Balearic Islands
11	2024-02-18	23:04	ZF1A	(20m)		CW	ER99ig	Cayman Islands
12	2024-02-18	23:03	V3T	(20m)		CW	ER56ox	Belize
13	2024-02-18	23:02	OH8L	(20m)		CW	KP20np	Finland
14	2024-02-18	22:23	IO5O	(20m)		CW	JN52ns	Italy
15	2024-02-18	22:21	ED7W	(20m)		CW	IN90dj	Spain
16	2024-02-18	22:19	KP2M	(20m)		CW	FK77ps	US Virgin Islands

FUN AND GAMES!

Crosswords, Word Search, etc.



“Antenna Word Search” Print this page to play!

M	R	E	A	C	T	A	N	C	E	V	O	Y	I	I	H	D
I	B	I	J	C	E	Y	V	H	N	P	T	G	O	S	O	I
I	D	I	P	O	L	E	L	C	B	V	A	F	I	T	G	R
A	A	A	Y	G	G	R	A	O	A	Y	I	D	M	W	N	E
M	O	Q	U	U	M	B	C	M	L	L	Q	S	P	D	I	C
C	L	A	D	D	E	R	E	X	U	S	C	T	E	O	D	T
Y	U	G	A	M	M	A	Y	V	N	Y	Q	B	D	H	N	O
B	S	S	U	R	Z	A	T	L	E	D	R	C	A	H	A	R
N	L	U	H	V	O	S	A	E	S	R	P	M	N	G	T	S
D	A	F	J	C	M	T	M	O	D	N	A	R	C	O	S	V
E	I	I	V	I	R	B	A	D	T	X	Z	G	E	I	D	S
T	D	Y	T	I	A	A	A	T	E	A	F	P	E	G	F	T
A	A	H	E	J	N	Z	F	H	O	Y	Z	B	A	A	Z	E
I	R	E	A	M	V	T	S	T	U	R	M	B	Z	U	K	P
D	R	B	F	I	O	N	O	S	P	H	E	R	E	Q	K	P
A	S	B	N	H	L	N	R	E	S	O	N	A	N	C	E	I
R	P	C	F	H	W	E	R	D	N	A	K	F	Z	A	T	R

Impedance

Radiate

Quagi

Radials

VNA

Gamma

Reactance

Random

Cushcraft

Beverage

Standing

Director

Smith

Ladder

Andrew

Delta

EFHW

Yagi

ugly

Balun

Rotator

Dish

Dipole

ionosphere

Hex

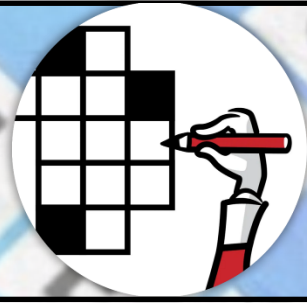
NVIS

Resonance

SteppIR

FUN AND GAMES!

Crosswords, Word Search, etc.



Answer Key... but don't cheat!



CLOSING REMARKS



W7DK

ABOUT THIS PUBLICATION

The Logger's Bark is the official publication of the Radio Club of Tacoma and is published by RCT, PO Box 11188, Tacoma, WA 98411. The Radio Club of Tacoma is a non-profit corporation as defined by law. All proceeds will be used exclusively for charitable and educational purposes. The Radio Club of Tacoma's Club House is located at 1249 Washington St, Tacoma, WA 98405, phone: 253-759-2040.

EMAILING OFFICERS

To contact any club officer, simply send an email to their call sign @W7DK.org

CONTRIBUTIONS OF ARTICLES & PHOTOS

We WELCOME contributions of articles, guest editorials, blurbs, Hints-and-Kinks, shack photos, QSL cards, memorable contacts, anything of interest to your fellow members. Submit your materials via email to: loggersbark@gmail.com or via US mail to PO Box 11188, Tacoma, WA 98411

RADIO CLUB OF TACOMA REPEATERS

Central Tacoma 2m: 147.28 + PL Tone 103.5
Central Tacoma 70cm: 440.625 + PL Tone 103.5
Crawford Mountain: 147.380 + PL Tone 103.5
North Tacoma: 145.21 - PL Tone 141.3

MEMBERSHIP INFORMATION

- FULL (licensed) and ASSOCIATE (non licensed) [membership](#) is \$35 per calendar year or \$30 for Licensed Seniors (65 and over)
- Licensed family [members](#) at same address pay \$20 each for the first two and are free for the third, fourth, and so on.
- [Full-time students](#), licensed or non licensed, up to age 25 are \$20 per year.
- Fees are applicable for the calendar year: January to December
- Lifetime [membership](#) is 20 times the yearly fee you are eligible for. Lifetime [memberships](#) are calculated based on the FULL and ASSOCIATE rates.
- Visit www.w7dk.org For the latest and most current information on events and activities

MEMBERSHIP APPLICATION
CLICK HERE!

HAVE A SUBMISSION FOR OUR NEXT ISSUE?

loggersbark@W7DK.org

BOARD OF DIRECTORS



W7DK

Board-approved minutes from the most recent meeting

Radio Club of Tacoma Board of Directors Meeting Minutes 2024-03-06

Meeting called to order at ____ 1908 ____.

Officers and Directors Present

☒	President	Mike Mikuchonis W7XTZ
☒	Vice President	Adam Barbera W2NCC
☒	Secretary	Gary McAdams WG7X
☒	Treasurer	Steve Dightman AF7YD
☒	Board	Doug Schafer AB7DG
☒	Board	Mike Drorbaugh W7MKE
☒	Board	Paul Matney W7PFU
☒	Board	Phil Pia K7PIA
☒	Board	Red Cranefield WB7EC

NOTE: These approved meeting minutes are reproduced here without any alterations other than to fit the available space. All language, punctuation, and spelling are exactly as submitted to the editor.

Quorum? ____ Yes ____

Approval of Minutes:

Motion to approve minutes as distributed: Motion made by Gary WG7X. Motion approved.

Silent Key or Illness?

The Nick, K7MO report: Nick is getting back to his old self. Has a home helper, electric wheelchair, and the works. We expect to see him back at RCT sometime soon! President Mike asked about a members suggestions to modify the clubhouse to accommodate handicapped folks.

Secretary's Report (Gary WG7X)

Things have been slow in the mail so far. A couple of bank statements, three new member applications and one renewal.

Treasurer's Report (Steve AF7YD)

Steve reports all bills are paid. HF committee is still in progress with their new equipment acquisitions. Funds are still in transit between banks. No motion on the money market accounts.

Committee / Reports

Membership (Mike W7XH/ GeorgeK7GRS)

All membership applications have been processed. New applications and or renewals need to go into the membership folder in the safe to get processed. Membership is now at 304. In the last two months we have acquired about 40 new members.

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Library (Doug AD7AV)

Randy talked to Doug a few days ago about doing triage on a large donation of books. Hopes to get back to the library soon, possibly this month.

Training (Stephan AD7AB)

Training continues on an informal basis every Saturday. Class in session this weekend with the usual VE testing to follow. Stephan has been assisting new folks with getting their new hand helds programmed.

VE (John AC7WW)

The February 15th session at JBLM we had 7 candidates, 2 Technicians, 3 passed element 2 & 3 to become Generals and one candidate failed Extra exam.

Thanks to the following VE's for their time and service.

Mike W7XH, Rob K7TGU, Steve AD7AB and Steve, AI7QM.

Info Tech and Website (Randy WB4SPB)

All systems nominal. The new website looks really good!

HF Operations (Phil K7PIA)

Phil reports all stations operational come upstairs and operate. If you want to do a contest let Phil know and he will set up the stations for you. CQ WPX PHONE is coming up on the 29th and 31st of March. If you have a fun ny callsign, this on is a good one to do.

He also reminds us that the VHF & UHF stations are all still all good to go for weak signal work.

Reminds us that we have acquired all the equipment from PJ N7PH's estate. Palstar tuner is on hand but the matching amp will not ship until late May.

A report from AI N7OMS is included here.

Hello All,

Bob Purdom and I (Al Ferguson Ed.) worked on the DC distribution system for all three stations upstairs yesterday and finished but for one or two small chores. The Flex station was re-bonded, and we talked about getting the Icom and VHF stations bonded soon. This work will dovetail nicely to any grounding that the club implements in the future.

PJ's Amp and tuner and once again together and working at the Flex station. Before we release use of the Amp the team is hoping to come up with some guidelines for using this equipment. Like how, when, and how much power to use with FT8 Mode.

We also tested coax path number 1 from patch panel to Flex and could not find anything wrong at this time.

The lightning arrestor was replaced on the UHF VHF vertical and tested good. So that station is up to speed.

Moved the power supply shelf on patch panel up and moved the Dummy loads down lower. We need to replace

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Dummy loads 4 and 2. 4 because Jack Hegseth K7DBU had a note on this one as being in poor shape and showed some evidence of overheating. 2 because it is very long and a tight fit on the shelf. Not a major issue but if one comes up, we will be ready.

We are returning the Kenwood power supply to PMT and placed the HF spare switching power supply for use at the UHF VHF station. So, we need to locate a spare for the HF stations.

Update: Kenwood PS is to remain in the HF room.

Over the past month the team has spoken about putting together kits of our spare HF radios for use on Field Day. This would allow us to give the Kits to the Band captains before Field Day so they could become good users of the equipment and we would also not have to disassemble the club stations.

We will have the K3, 7410, Pro and Flex 6500. We need to fully determine if the club wishes to go in this direction, then determine what is needed. I am guessing some rig interfacing and power supplies would be on that list.

As usual, work is ongoing in the HF room, and we will tackle the Lou Room station in the coming months to bring things up to par with the upstairs stations. Including installing the Flex 6400M.

AI N7OMS

Tower (Nick K7MO)

No report. Adam, W2NCC will include with his report.

Repeater Operations (AI N7OMS)

Discussions are ongoing with Thurston County ARES about the Crawford Mt. repeater.

Facilities Management (Adam W2NCC)

Grounding project update project phase one is in process. Many parts will be needed for all stations that will be grounded and bonded in the building. Phase two of the project will be to standardize the Heliac for the two repeaters.

Focus is going to be on phase one for now which is basic grounding. 811 was called for locations services. The wires that are underground from the garage are unknown in location as is the wiring to the light on the front steps. Adam is reaching out to the people previously involved in the wiring location and locating water and sewer piping in the ground around the clubhouse. President Mike asked Steve Dightman about location of the sewer piping since Steve had been involved with that in the past.

Adam is in progress in accumulating all this data.

Second item for Facilities: A quote for the preliminary alarm updating has been received. The idea is to have remote alert in place to have selected personnel be alerted with this service. Alarm software is also to be updated.

Discussion also continues about the wisdom of reconnecting the external alarm siren. Folks who have wanted this to hap-

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pen also did not want the responsibility to reset the alarm if they had to do it manually.

Doug, Adam and President Mike continued the discussion about adding dual path alarm notification to the alarm system. Doug had researched this and found a module that would allow this external access for running the alarm system. Doug shared internet-sourced information about the SEM module that the contractor recommends to permit remote monitoring and programming of our existing security system. But it requires a \$**/month Verizon account."

Adams professional company said that our alarm system, which is good for another ten years if we want to keep using it. The discussed upgrades will enable us to keep the existing alarms with very little new additions. Adam will give us some time to discuss this later. The proposal from the contractor is attached to these minutes.

Mike W7MKE Brought up the possibly of using a ring type system. The alarm expert was OK with it but recommended that we keep using the existing system.

The Facilities committee is also working on more projects for 2024. Adam will update as necessary.

Property Management (Red WB7EC)

\$*** dollars' worth of equipment was sold this month. Two HF transceivers have been sold. Two Icom 718's sold in February accounted for all that.

Red made a motion to approve the sales of the following excess equipment: W2NCC seconded.
Motion carried.

- | | | |
|-------------|-------------------------------------|----------------------|
| 1. RCT 4255 | Hardrock-50 HF Power | SN: 1130 |
| 2. RCT 4256 | Palstar DL2K Dummy Load/Power Meter | SN: 179515213 MUSEUM |
| 3. RCT 4257 | Military Antenna Group OE-452/PRC | SN: Unknown |

President Mike reminds us that PMT needs help. Anyone wanting to help should contact Prez Mike.

Museum (Dan KD7SV)

Dan reports Hammerlund HQ145 was gifted to the museum, it is almost operational. Heathkit HR10B needs more work, but still needs additional work.

Wednesday Workshop (Randy WB4SPB)

TBD

General Meeting (Dave W7UUU)

President Mike asks for input on program managers and if no one wants to volunteer, it is possible that committee chairs or BOD members will be drafted.

Dave says that he does have someone for the next general meeting but will not have anything else right now. Dave also may have a backup tribute to Bob Heil K9EID for next week's meeting.

Dave is also looking for someone to take over the acquiring of locations for the August Picnic.

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Unfinished Business

None.

New Business

Dave, W7UUU presents this to the BOD:

So today I had my weekly staff meeting with QRZ.com and because of the Camp Quest event that they sponsored. In January I presented the Club Quest event as posted in the Bark. The full article runs in the March issue.

But the CEO of QRZ absolutely LOVED the Bark and wanted to know if we'd be willing to publish it on the HOME PAGE of QRZ every month, in one of the tiles. Wow! Global exposure - 971,000 members and double that number that just read the site.

ZERO IMPACT TO OUR QTH.com BANDWIDTH!!

QRZ would host the PDF that would be used - so ZERO impact to our own club bandwidth at QTH.com. It will be a tiny matter for me to redact all the club minutes from the version sent to QRZ servers that would then appear there. NO ONE on QRZ would see our minutes. Could be a HUGE exposure boost to "The Mighty DK"
BUT this really needs to go before the board the week after next. It needs to be a BOD approval sort of thing.

Thanks! Dave W7UUU.

Adam W2NCC made a motion to have Dave W7UUU follow through to present the newsletter to QRZ for presentation on their websites front page. Doug AB7DG asked about privacy concerns. Dave W7UUU pointed out that the newsletter is already posted publicly due to its presence on the W7DK.org website.

Mike, W7XH asked about a link to W7DK's membership application. Dave W7UUU indicated that it was already in the Loggers Bark last page.

Steve AF7YD asked about writing style for the different websites. Discussion ensued on this point. Conclusion was that any style was OK. Steve asked for a deferral of discussion of this.

Discussion continued with many viewpoints and things got busy. No point in quoting everything said... Let's just say that folks had dissenting opinions in this discussion.

President Mike W7XTZ redirected the discussion and eventually Dave W7UUU's proposal was approved.

President Mike asked for a repeat of the motion.

W2NCC made a motion to publicize our Loggers Bark on the QRZ website minus the Business and BOD meeting minutes. Motion seconded by Phil K7PIA.

President Mike then called for a rollcall vote: Adam W2NCC yes, Gary WG7X yes, Steve AF7YD yes, Doug

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AB7DG abstain, Mike W7XH yes, Paul W7PFU yes, Phil K7PIA nay, Red WB7EC yes.

Motion Carried. With 6 yes, 1 abstention and 1 no.

After this, Mike W7MKE asked Dave about his other ask:

Dave asked: In addition, I'd like to ask the BOD to allow funding of the printing of two copies of the Bark each month, printed at Office Depot - to take the load off those who have so graciously printed them on their own color printers.

I don't know the cost - but I would certainly think not that much for color prints. If I print one, and it's what I consider too expensive, I won't print the second. Obviously, downsize my request to "Requests minimal funding to print two color copies per month."

Dave made the point that previous printed Loggers Barks had been tossed out. BOD will add that to the binder that will now hold the printed versions.

Mike W7MKE moved that we pay for color printing of two for having a hard copy of the Loggers Bark in the clubhouse. Motion seconded by Adam W2NCC.

Discussion continued. Costs would be in the range of \$*** + or – No objections raised, motion passes.

From Adam, W2NCC:

SeaPac – Does the club want to get a table -- W2NCC. The cost would be \$45. Motion Made by W2NCC that we buy a table for members to sell stuff on Friday, May 31st through June 2nd. Phil Pia seconded. Discussion ensued. The secondary use would be to put club information there for advertising W7DK. Prez Mike called for any objections. No objections. Motion carried.

Membership goals for 2024 - W2NCC:

Adam W2NCC shared information about locations of potential members in various radiuses 10 miles, 20 miles, and 30 miles in a circle from the clubs' location. He shared with Membership a list of hams in the Western Washington region. This list contained email addresses for 5000 hams. Sending physical mail is expensive compared to electronic. This list will be used primarily to increase the club's membership... Also, using this data to drum up interest using mass mailings to the local hams to invite them to RCT for a Saturday meeting or some other event that RCT might be doing.

Mike Isakson discussed having acquired the data and preparing the data for a mass email blast starting within the week. We intend to invite other hams to come to our Saturday open house. They would also receive a link to the Loggers Bark so that they could read for themselves to see who we are. First mass emails go out basically to the Tacoma metro area with 1698 email addresses for the first list. The

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question was asked about whether our mass emailing would be considered unwelcome competition to other clubs. Phil K7PIA and Mike W7XTZ indicated that their opinion was that the mailing would be no problem.

Venues for the Annual Awards Banquet. Doug Schafer asked if we were still interested in using the Collins Grange facility that he is a member of for our December awards banquet. He was answered in the affirmative. He will have the manager book it for us.

Venues for the Monthly General Meetings – W2NCC.

COVID changed our ability to have an in-person venue for our general meetings. Adam has been looking at ~~some~~ venues options. Adam asked which day the meeting could be held on that would not interfere with current activities at the clubhouse. Mike Isakson proposed that we hold our general meeting on Saturdays and that training is being held at the clubhouse. Adam will research venue options for the general meeting and provide an update to the board next month.

Activity Reports, Discussion Topics, Announcements.

John Sherrill's N7TES' POTA activity is posted on the last page of the Loggers Bark.

Adjournment at: _____ 2100 _____

Attachments: [continued next page]

BOARD OF DIRECTORS



W7DK

Board-approved minutes from the most recent meeting

RADIO CLUB of TACOMA
ATTENDANCE SHEET
BOD Meeting
2024-03-06

	NAME	CALLSIGN	RCT NUM
	ATTENDED in Clubhouse		
1	Mike Isakson	W7XH	2657
2	Paul Nosal	K7OSS	2530
3	David Stillwell	AC7KP	2073
4	Adam Barbera	W2NCC	2715
5	Mike Drorbaugh	W7MKE	2761
6	Mike Mikuchonis	W7XTZ	2470
7	David Ashley	W7GEL	2987
8	Paul Matney	W7PFU	2546
9	Doug Schafer	AB7DG	2879
10	Gary McAdams	WG7X	1249
	VIA ZOOM		
11	Red Cranefield	WB7EC	2561
12	Randy Myers	WB4SPB	2050
13	Dave Ellison	W7UUU	743
14	Dan Vacanti	KD7SV	2640
15	Phil Pia	K7PIA	2681
16	Steve Dightman	AF7YD	512

BOARD OF DIRECTORS

Board-approved minutes from the most recent meeting



W7DK



ROBBLEE'S

Total Security, Inc. SINCE 1918

www.robblees.com
751 Tacoma Ave South
Tacoma, WA 98402
Ph: 253-627-5448

Quote

Number26588

DateMar 5, 2024

P.O.

Terms

Ship Via

Ship Date

Bill To
Adam Barbera **Security System Take-Over Only**
Amateur Radio Club Of Tacoma
360-870-7894
1249 South Washington Street
Tacoma WA. 98405
adambarbera@yahoo.com

Qty	ID	Description	Unit	Ext	Photo
Addition project notes					
We will provide the following:					
Takeover of existing hardwired DSC panel using a SEM module below. Tech will upload existing programming exactly the way it is and train customer on Aarm.com's platform to add/delete users via smart phone or computer and assist in setting up custom notifications.					
Currently existing system has a trouble light which is probably a communication failure. Should the technicians find anything not in good working order they will discuss with Adam first and complete on a separate time and material work order.					
Monthly monitoring for this quote will be \$44.95					
Tier 2C alarm.com package					
Tier 2C package includes remote arming through the mobile app, email/text message notifications. Includes central station monitoring for intrusion and life safety devices. Requires a 36-month term at \$44.95 per month, and month to month thereafter.					
1	A106879	ADC-SEM210-PS-VZ SEM FOR POWER SERIES WITH VERIZON		\$349.00	\$349.00



Subtotal

Discount 10.00%

Total

BOARD OF DIRECTORS

Board-approved minutes from the most recent meeting



W7DK

**ROBBLEE'S**
Total Security, Inc. SINCE 1918

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Number 26588
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Qty	ID	Description	Unit	Ext	Photo
3.5	99LA	ELECTRICAL LABOR ESTIMATES ELECTRICAL LABOR TO SUPPLY AND INSTALL THE SYSTEM OUTLINED IN THE QUOTE.	\$179.00	\$626.50	

Thank You for the opportunity to provide for your security needs. We appreciate the trust and confidence in Robblees.

Subtotal	\$975.50
Discount 10.00%	\$97.55
Total	\$877.95

BOARD OF DIRECTORS



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Board-approved minutes from the most recent meeting

Please Note:

All prices exclude Washington State Sales Tax for your area.

All prices are guaranteed for 30 days from date on proposal.

The customer is to provide 110VAC, phone lines, network connections as needed.

All options must be selected at time of initial order to guarantee pricing.

Terms- 50% deposit at the time of initial order, 50% balance upon completion.

All electrical permits costs are excluded from this proposal. Price subject to location and jurisdiction. Price will be added to final invoice.

Additional lighting may be required (not included) for the CCTV system to supply a proper picture in low light conditions.

All work shall be performed during Robblee's normal business hours of 8:00am to 5:00pm Monday thru Friday.

All low voltage wiring shall be installed according to local electrical codes and standards.

Warranty for project labor is one year. All product warranty is a minimum of one year or manufactures warranty.

~REASON TO SELECT OUR FIRM~

Robblee's Total Security, Inc., has been in business since 1918. Through four generations, we are proud of the ability to provide every customer with the very best security solutions available today. We pride ourselves with the ability to offer the necessary support and service resulting in complete customer satisfaction and peace of mind. We continually strive to achieve the highest level of confidence and expertise to allow us to interact personally with every customer, provide for their security needs and gain their confidence and trust. We have had the privilege of working with several different facilities thought out the years. No matter how large or small a company is, we offer them the highest level of service and support that is second to none in the industry. We also require our employees to maintain a high level of professionalism and when problems do arise, react with promptness and prudence.

Thank you for the opportunity to serve you. We look forward to continuing our long term professional relationship.

Sincerely,

Jim Patterson
President & CEO

BOARD OF DIRECTORS



W7DK

Board-approved minutes from the most recent meeting

Partial Job Reference List:

Tacoma Goodwill Industries—We have installed a networked Card access control system for their 40+ sites. We supplied the DSX solution which allowed them to centrally manage the access from the main office. All locations directly tie into the server at the main facility. They have about 150 doors on the system. We also have them on the Alarm.com platform for centralized management of their alarm systems for all locations. They have been able to change codes and arm systems from an internet connection and phone. We have also supplied them with IP based CCTV solutions for all of their locations.

Seattle Goodwill Industries—We have installed a networked Card access control system for their 35+ sites. This includes a solution around the Genetec Software platform. They have about 135 doors on the system. We also have them on the Alarm.com platform for centralized management of their alarm systems for all locations. They have been able to change codes and arm systems from an internet connection and phone. We have also supplied them with IP based CCTV solutions for all of their locations.

BJ'S Bingo—We installed over 350 new cameras as part of their recent remodel project. All of the cameras that monitor the building a secure areas connect through a security network and fiber backbone. They are using an Enterprise video management solution by Exacq Vision.

Washington United Terminal—We installed the Genetec IP solution for their CCTV system. They record and monitor 32 cameras in their yard. They also are using the wireless link by Tranzeo to transmit a video signal over 1 mile. We are scheduled for a large upgrade in 2012 for 40 additional megapixel cameras over fiber.

Life Center Tacoma and Life Christian School—We installed over 50 cameras using Vicon's Kollektor series DVR's. These cameras are located in the office and hallways of the church and school. We also have DSX card readers on 20+ doors.

Fircrest Golf Club—We installed a CCTV system using Genetec's IP solution. This system consists of 16 cameras covering the parking lot and offices. We have a wireless PTZ covering the parking lot using Tranzeo's wireless technology. We also have a dedicated license plate capture camera that allows for all license plates to be documented entering the facility.

Gaming customers— We have two local casino clients that have trusted us to provide for their door security. We cover everything from the exterior doors to important cash rooms and vaults. One client used a solution by DSX and this location has over 50 doors. The other large client used a solution by Genetec for all of their restricted doors. This system has over 135 doors on the system. Both systems are managed from a centralized office.

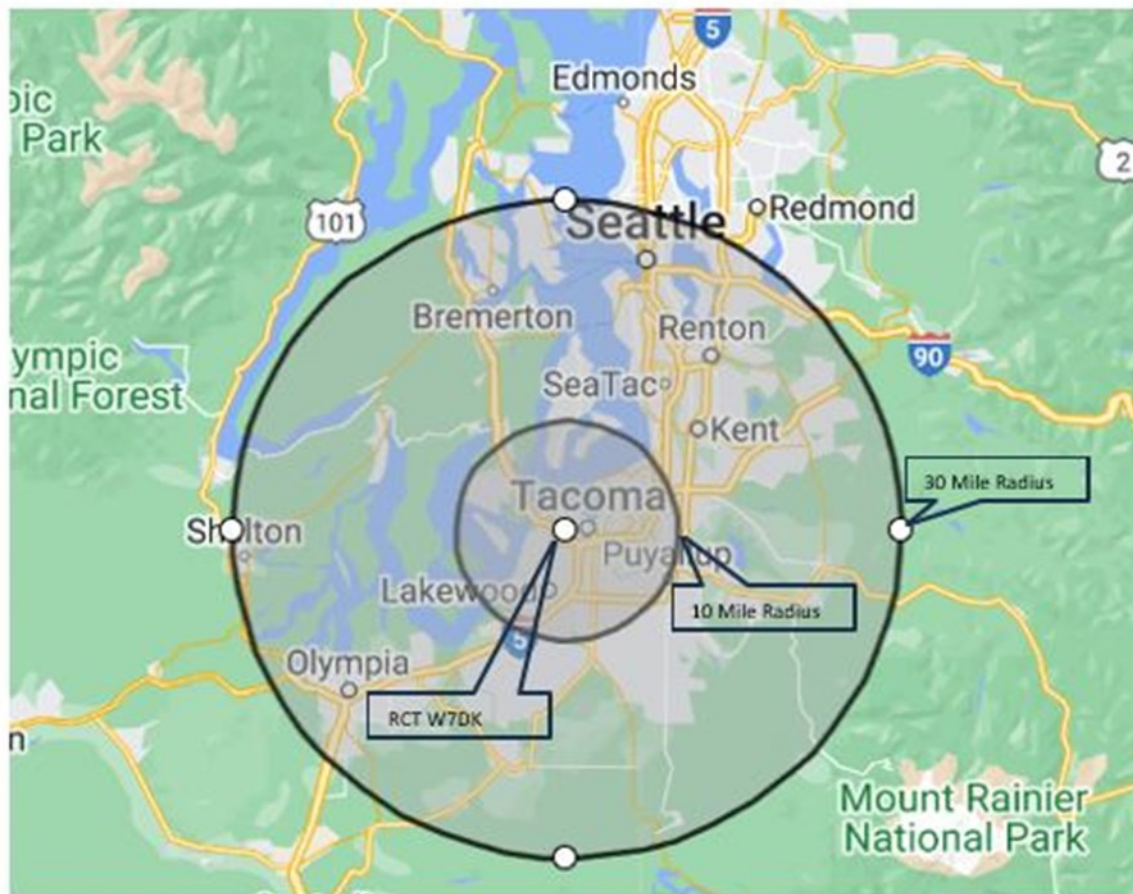
BOARD OF DIRECTORS

Board-approved minutes from the most recent meeting



W7DK

Ham Statistics Proximity of Licensed Hams to the Clubhouse Adam W2NCC



Proximity of licensed Hams to the clubhouse:

- 10 Mile Radius 1,600
- 20 Mile Radius 5,100
- 30 Mile Radius 11,800

GENERAL MEETING

Minutes from last month's meeting



W7DK

Radio Club of Tacoma General Meeting Minutes March 13th, 2024

Meeting called to order at _____ 1900 _____.

NOTE: These approved meeting minutes are reproduced here without any alterations other than to fit the available space, and to redact dollar amounts per Board rules. All language, punctuation, and spelling are exactly as submitted to the editor.

Officers and Directors Present

☒	President	Mike Mikuchonis W7XTZ
☒	Vice President	Adam Barbera W2NCC
☒	Secretary	Gary McAdams WG7X
☒	Treasurer	Steve Dightman AF7YD
☒	Board	Doug Schafer AB7DG
☒	Board	Mike Drorbaugh W7MKE
☒	Board	Paul Matney W7PFU
☐	Board	Phil Pia K7PIA
☒	Board	Red Crane field WB7EC

Quorum? ☐ No ☐ (10% of membership required to conduct business)

Welcome and Acknowledgement of New Members and Visitors (Please introduce yourselves)

Flag Salute Led by: President Mike W7XTZ

Silent Key or Illness?

Walt WA7SDY reports that his dad is out of the hospital and is doing OK.

Doug Schafer, AB7DG reports that Stan Nelson, K7DKK had a "cardiac incident" resulting in a short hospital stay. He is out of the hospital now but will need to see a cardiologist for a possible pacemaker installation.

General Meeting / Bark Editor (Dave W7UUU)/ Program?

Program is the backup program that Dave had ready in case the first person would have to bow out. An interview segment with Bob Heil from 9 months ago, in memoriam to his passing – Dave W7UUU.

Dave played two segments of his interviews with Bob Heil, well received with the club members. Adam had a follow up question regarding equalizers used in ham radios. Dave indicated that Bob Heil was the one that made equalizing audio an integral part of new amateur radios.

Dave has the Loggers Bark on QRZ.com now and it is also being well received by the QRZ community. Members are asked to send in contributions and to read the newsletter. Dave reiterated the point that the President of QRZ.com had asked him to post the Bark with minutes redacted. It is available online at QRZ in the redacted version and on the W7DK.org website with

GENERAL MEETING

Minutes from last month's meeting



W7DK

the full edition. There had been 1406 downloads of the new publication in the last couple of days as of the date of this meeting.

Secretary's Report (Gary WG7X)

The usual stuff, some renewals are still coming in and a couple of new member applications and bank statements.

There was a message from Pierce County about filing asset listings for the upcoming 2025 Tax year. Quoted below:

Message from Pierce County: Registered eFiler, the 2024 Asset Listings for the upcoming 2025 tax year are now available in eFile.

Key Details:

- o **Deadline:** April 30, 2024
- o **Assets to Report:** All assets including Leasehold Improvements, Leased Equipment, and Supplies used to conduct business as of January 1, 2024, should be reported on each account.

President Mike suggested that Steve Dightman would probably be the best to handle this.

Treasurer's Report (Steve AF7YD)

President Mike asked Steve about the progress of the equipment inventory because he thought that the inventory would cover all the things that Pierce County is asking about. Steve indicated that the inventory was/ is being conducted to indicate to our insurance company what assets that we need to have coverage on.

President asked Steve if the inventory data could be expanded on to provide data to the county. Mike W7MKE told us that this was just an online thing involving filling out a form. Mike W7MKE indicated that the login info is in the treasurer folder in the filing cabinet. Secretary Gary indicated that he would find the info, check into the website and update anything that needs to be updated.

Steve indicated that taxes had been done. Everything is up to date. Three-year budget plans have already been submitted during the January Budget meetings.

Bill for county taxes have been received and will be paid. Taxes will be posted on the Loggers Bark. January and February financial reports will be sent to the BOD as soon as they are ready. Steve is working with the quick books to get these reports submitted soon.

Mike Drorbaugh suggested that we prioritize making the money market account work for us. He also wants Steve to transfer the financial records to our local club computers so that we have the data safe here. Steve says that he will get the money market started as soon as possible. President Mike W7XTZ agrees with Mike W7MKE on making this a priority. Steve said that he would start on this immediately.

GENERAL MEETING

Minutes from last month's meeting



W7DK

Discussion continued about getting Quickbooks installed on the NAS to allow the officers to be able to access the account data locally on the NAS.

Mike indicates that it is hard to forecast budgets into the future three years out but that we will do our best to make a prediction because that is a task that is included in the club bylaws.

Lastly, President Mike asks again for volunteer assistant treasurer. Nobody wants to do it so far.

Committee / Reports

Membership (Mike W7XH/ George K7GRS)

During the last BOD meeting discussions were held about increasing reaching out to people to encourage them to join the RCT.

Mike has a list provided by our training director Stephan AD7AB containing about 1000 names of folks who have gone through our training. He has another list containing about 1600 names with email addresses to go through also.

Three returning members have been processed today. Membership is now at 308! A new member packet is in development as is the email campaign for generating new hams that we find out about. Mike gets a new member list from the Section Manager, and this is the list that Mike is using. Mike's goal is 400 new members by the end of the year.

Library (Doug AD7AV)

Randy talked to Doug Oakman a few days ago about doing triage on a large donation of books. Hopes to get back to the library soon, possibly this month. Mike also talked to Doug today and he says that Doug Oakman and George and Lola were in the clubhouse today doing triage. Doug says that he's trying to generate an article for the Bark.

Training (Stephan AD7AB)

The class was held from 3/09/2024 through 3/10/2024. Test results listed in the VE report from John AC7WW, immediately following this training report. Nine students were in the class and four of them showed up for testing.

GENERAL MEETING

Minutes from last month's meeting



W7DK

VE (John AC7WW)

On Tuesday March 12 your VE Team hosted 8 candidates at the Clubhouse. Six Technicians joined the Amateur Service, one candidate upgraded to General, and one candidate upgraded to Extra.

Thanks to the following VE's for their time and service.

Leonard KA7NWF, Rich KK7VH, Stephen AD7AB, Mike W7XH, Manny AD7MA and Rob, K7TGU.

The next scheduled test session is Tuesday April 9th.

Info Tech and Website (Randy WB4SPB)

All systems are nominal. The new website looks good, and Randy is doing a bit of troubleshooting some issues with appearance for folks using mobile equipment.

HF Operations (Phil K7PIA)

Phil reports all stations operational come upstairs and operate. If you want to do a contest let Phil know and he will set up the stations for you. CQ WPX PHONE is coming up on the 29th and 31st of March. If you have a funny callsign, this one is a good one to do.

He also reminds us that the VHF & UHF stations are all still good to go for weak signal work.

Phil reminds us that we have acquired all the equipment from PJ N7PH's estate. Palstar tuner is on hand, but the matching amp will not ship until late May.

Tower (Nick K7MO/ Adam W2NCC)

Grant request submitted to the ARDC, no response so far. Adam says to wait. Adam is also going to be doing some basic maintenance on the tower before the galvanizing. Adam will be leading the initial maintenance of the tower because he will be the one up on the tower.

Adam is also planning a general work party for spring cleaning.

Repeater Operations (Al N7OMS)

No report.

Facilities Management (Adam W2NCC)

Grounding project update project phase one is in process. Many parts will be needed for all stations that will be grounded and bonded in the building. Phase two of the project will be to standardize the Helix for the two repeaters.

GENERAL MEETING

Minutes from last month's meeting



W7DK

Focus is going to be on phase one for now which is basic grounding. First steps being taken for locating underground stuff on property (811) information. Adam is working with knowledgeable club members to design the ground system correctly. He is also going to generate a parts list for approval from the BOD.

Second item for Facilities: A quote for the preliminary alarm updating has been received. The idea is to have remote alert in place to have selected personnel be alerted with this service. Alarm software is also to be updated. Adam reported this to the BOD at the March 6th meeting complete with an estimate with parts list. Adam will be following up on this next month after the BOD meeting.

Adam is looking at several small projects around the clubhouse.

Property Management (Red WB7EC)

Red is asking for help with the property management committee. If you want to help, please let him know. Some folks are leaving and Red needs more help to replace the departing members.

Mike & Key report, Red reports that we took everything in the that was on the sale sheet in the lockup to the ham fest. Very few of those things were high value stuff. Red suggests the club members look at the list that is posted on the club bulletin board. Items on this list have been heavily discounted to encourage the members to buy this stuff. PMT excess stuff will be held in the lockup and displayed every Saturday for sale, weather permitting.

\$1386 was taken in at the M&K ham fest and \$1355.00 was received in February for the usual PMT sales.. Red is again asking for help to triage stuff in the donations bucket. Please consider assisting with the efforts ASAP.

Dave W7GEL asked about putting stuff on Ebay or Craig's List. Usually, it is a problem because of IRS issues for a 501.3c corporations. Discussions about this went on, about taxes and such that would be more trouble than they are worth.

Red is also considering taking more stuff to the next ham fest at Seaside Oregon.

Museum (Dan KD7SV)

Dan reports Hammerlund HQ145 was gifted to the museum, it is almost operational. Heathkit HR10B needs more work, but still needs additional work.

GENERAL MEETING

Minutes from last month's meeting



W7DK

Wednesday Workshop (Randy WB4SPB)

Subject to be determined.

Unfinished Business.

New Business

QRZ.com is displaying our new Loggers Bark by Editor Dave W7UUU on the front page now. The newsletter will also be available at the clubhouse in full color in a new binder provided for just that purpose. Please do not throw away the prior Loggers Bark. We want to archive them for future use.

SeaPac Table

Adam is looking into getting W7DK a table at the upcoming SeaPac ham Fair in Seaside Oregon. Dates are May 31 through June 2nd, 2024. Contact Adam W2NCC for details.

Membership goals for 2024 - Adam W2NCC:

Adam W2NCC shared information about locations of potential members in various radiuses 10 miles, 20 miles, and 30 miles in a circle from the clubs' location. He shared with Membership a list of hams in the Western Washington region. This list contained email addresses for 5000 hams. Sending physical mail is expensive compared to electronic. This list will be used primarily to increase the club's membership... Also, using this data to drum up interest using mass mailings to the local hams to invite them to RCT for a Saturday meeting or some other event that RCT might be doing.

Mike Isakson W7XH discussed having acquired the data and preparing the data for a mass email blast starting within the week. We intend to invite other hams to come to our Saturday open house. They would also receive a link to the Loggers Bark so that they could read for themselves to see who we are. First mass emails go out basically to the Tacoma metro area with 1698 email addresses for the first list. The question was asked about whether our mass emailing would be considered unwelcome competition to other clubs. Phil K7PIA and Mike W7XTZ indicated that their opinion was that the mailing would be no problem. Adam W2NCC asked the club/board to set a goal of 400 members by the end of the year 2024.

Venues for the Monthly General Meetings – Adam W2NCC.

More people are attending the general meeting at the clubhouse and there is limited seating. Adam has been looking at some venues options for the general meets. Adam W2NCC will research venue options for the general meeting and provide an update to the board next month.

Club Station License Renewal:

Adam W2NCC reached out to Nick Winter K7MO the club's station trustee and reminded him of the need to renew the club's license this year. Nick is planning on renewing the club's license and will continue to be the club's trustee...

GENERAL MEETING

Minutes from last month's meeting



W7DK

Doug AB7DG is securing us the Collins Grange facility for our annual awards banquet.

New Picnic location for BOD meeting.

Show and Tell

Nothing mentioned.

Tuning and Traffic

Dave showed us an SWL card from Holland from an SWL who had received copy from Dave's QRP beacon. Then he showed us his T2C QSL where he worked that Dx-pedition on all bands/ modes.

Announcements

Mike W7MKE has been selected to be the Field Day coordinator this year, he is looking for operators and stuff... Gary has volunteered to be the ten-meter station lead. Ellen Hardin has volunteered to be 40M station manager, Dan Vacanti is 20M CW and Mike W7XTZ is 20M phone. The 7410 is for 10M so only looking for 80/15 station manager to use the 6500 Flex.

Adjournment at: _____2030_____

GENERAL MEETING

Minutes from last month's meeting

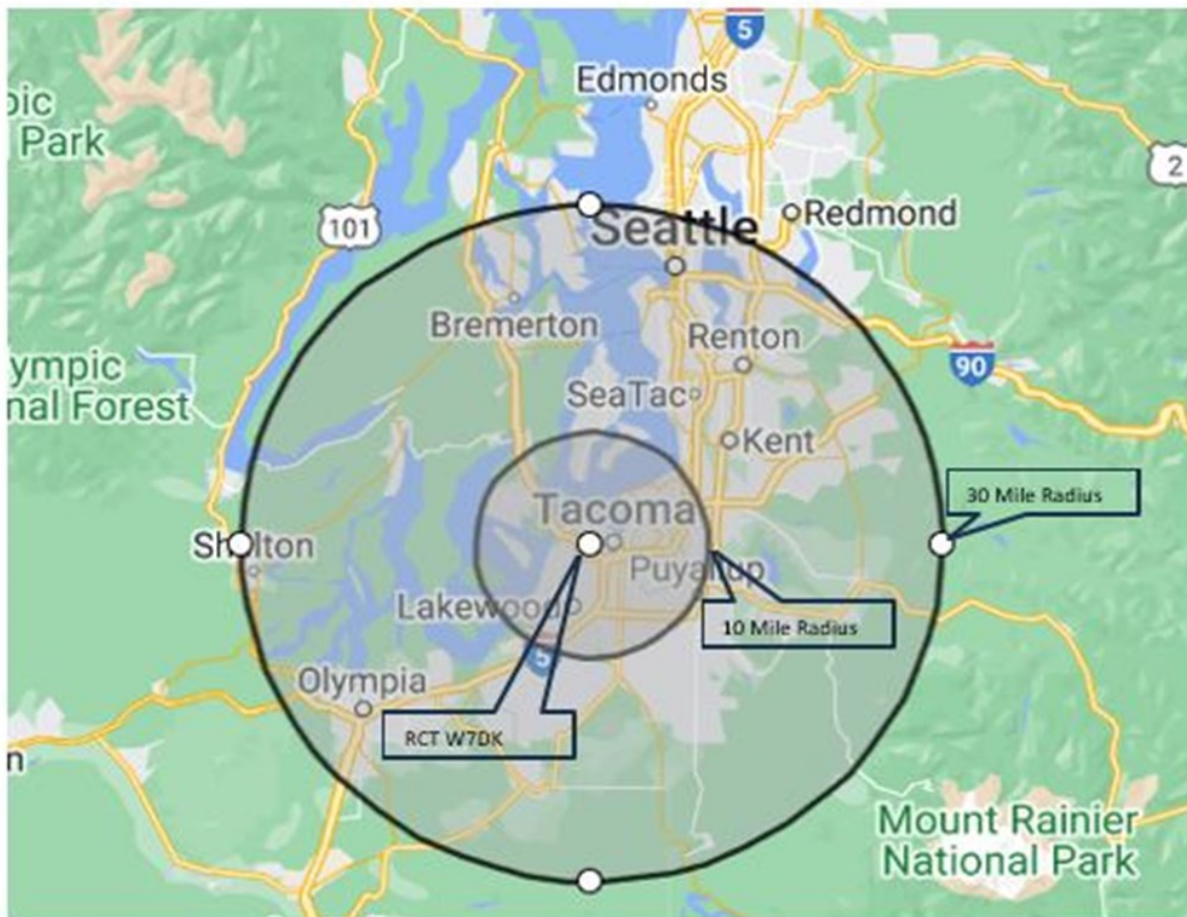


W7DK

Ham Statistics

Proximity of Licensed Hams to the Clubhouse

Adam W2NCC



Proximity of licensed Hams to the clubhouse:

- 10 Mile Radius 1,600
- 20 Mile Radius 5,100
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GENERAL MEETING

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W7DK

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8	Jeff Winget	KK7PRJ	3101
9	Dave Ashley	W7GEL	2987
10	Gary McAdams	WG7X	1249
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3	Rachel Jones	KO4HLC	Visitor
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5	Dave Ellison	W7UUU	743
6	Paul Pettinger	KG7FTN	2785
7	Randy Meyers	Wb4SPB	2050
8	Mike Hancock	AJ7MH	2760
9	Stephen Morton	AD7AB	2127
10	Jeanne Morton	KD7ZBM	2215
11	Whit Worcester	KG7LNZ	2677